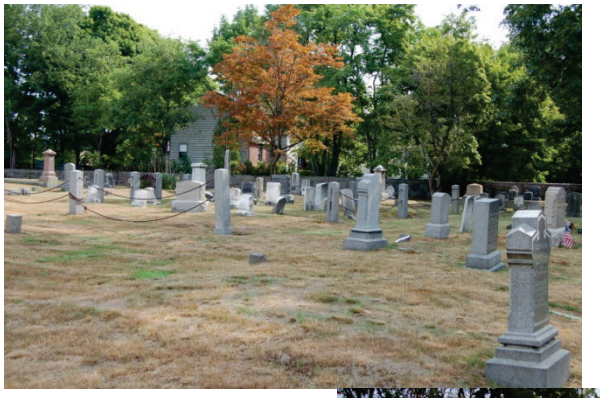
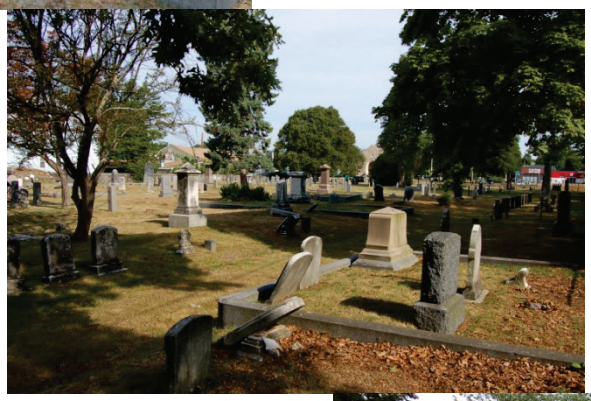
PRESERVATION ASSESSMENT OF THE ELM STREET CEMETERY, BRAINTREE, MASSACHUSETTS





Chicora Research Contribution 529

PRESERVATION ASSESSMENT OF THE ELM STREET CEMETERY, BRAINTREE, MASSACHUSETTS

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MANAGEMENT SUMMARY

This study examines what is called the Elm Street Cemetery in Braintree, Massachusetts as part of a larger preservation project under the direction of Ms. Barbara Donohue.

Although the cemetery has great potential, much must be done.

Many of the problems seen at the Elm Street Cemetery are the result of deferred maintenance – doing too little over too long a period of time. The problem with this approach is that eventually the historic fabric can no longer sustain further maintenance cuts without a significant and noticeable degradation of the historic fabric. The Braintree cemetery is at, or perhaps even past, that point. Exacerbating the problem are changes in the funding level and staffing devoted to the cemetery by the Town of Braintree.

It is critical that the cemetery have a solid, permanent funding base. The requirements of cemetery maintenance do not change based on political vagaries or economic forecasts. In fact, their funding requirements only increase with age.

Massachusetts's lawmakers were progressive and in 2000 saw this need, enacting the Community Preservation Act that allows cities and towns to preserve open space and fund historic preservation. In 2002 Braintree accepted this invitation and allocated 1% of its property tax to this initiative. The town's Planning and Community Development Office oversees these funds. We strongly recommend that the cemetery begin receiving substantial funding from these funds for preservation activities recommended by this study. This is critical step in the long-term preservation of the Elm Street Cemetery.

Another critical problem is that the town has made detrimental changes to the cemetery landscape. Original, planned landscape features dating to the early 19th century have been removed. Original plantings have been cut down and tombs have been demolished. These actions have dramatically affected the cultural landscape and jeopardized the property's eligibility for inclusion on the National Register of Historic Places. The town must become familiar with the Secretary of the Interior's Standards for Preservation and ensure that they are uniformly applied to all actions in the burial grounds.

Even routine maintenance, such as mowing, is damaging stones. Other aspects of routine maintenance, such as trash collection, have fallen by the wayside, resulting in the cemetery having a dilapidated and uncared for appearance.

It is essential that the Town regain control of its cemetery and ensure that henceforth maintenance very carefully follows the recommendations offered in this study. A high priority must be the replanting of the cemetery, using historically appropriate trees and shrubs.

Maintenance such as mowing and collection of trash must be significantly improved. This will involve additional staffing and time. Large deck mowers are inappropriate and must be replaced by small walk-behind mowers. The heavy line used in trimmers must be replaced with much lighter line to prevent damage to the stones. Trash, leaves and other debris must be collected, not mowed over. The grounds must be periodically aerated. The turf requires periodic fertilization. Trees must be professionally pruned. These are the expenses associated with appropriate cemetery maintenance.

The town must establish rules for the cemetery, post them, and ensure they are enforced. For example, we observed many stones disfigured by dogs urinating on them. This is disrespectful. The cemetery is not a dog run and animals must be prohibited from the cemetery grounds.

We also recommend a new, comprehensive program to reduce the vandalism we observed in the cemetery. This program combines increased police patrols, neighborhood participation, a friends group, more vigilant staff, and more careful record keeping.

A feature often associated with the cemetery is its heavy decorative cast iron fence along Elm Street. Lacking appropriate maintenance, this fence evidences a broad range of significant problems including corrosion, broken welds, and even missing sections.

The granite boundary wall, while receiving at least one maintenance effort at some time in the past, is also rapidly deteriorating. Hard Portland cement mortars smeared on the wall must be removed and the wall appropriately repointed. Two sections evidence displaced stones and must be rebuilt. The iron fence toping the wall is in deplorable condition with much corrosion and many missing sections.

Fences around different plots are in equally unstable condition and require immediate attention.

The three surviving tombs in the cemetery each exhibit problems including inappropriate repointing, corrosion of doors, build-up of soil, and damage to the stonework.

There is significant damage to a broad range of the stones in the cemetery. Some have been moved over time to facilitate mowing – changing the appearance and integrity of the burial grounds. These stones must be placed back in their original, and correct, position. Slate stones exhibit spalling and splitting characteristic of clay-rich slates and these stones require conservation treatments to ensure that they do not further deteriorate. Many more stones are broken, through either vandalism or abusive lawn maintenance practices. These stones require repair.

This report evaluates all of the identified needs, classifying them into three broad categories:

- Those issues that are so critical – typically reflecting broad administrative issues, health and safety issues, and issues that if delayed will result in significantly greater costs – that require immediate attention during this fiscal or calendar year.

- Those issues that, while significant and reflecting on-going deterioration and concerns, can be spread over the next 2 to 3 years. This allows some budgeting flexibility, but this flexibility should not be misconstrued as a reason to ignore the seriousness of the issues.

- Finally, those issues that represent on-going maintenance and preservation issues. These costs can be spread over the following three to five years. Like the Second Priority issues, this budgetary flexibility should not be interpreted as allowing these issues to slide since further delay will only increase the cost of necessary actions.

Conservation activities at the cemetery will cost in excess of $250,000. While this is a substantial sum, it reflects correction of deterioration which has been on-going for several decades.

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INTRODUCTION

The Project

In August 2006 Ms. Barbara Donohue contacted Chicora Foundation to propose on a stone-by-stone assessment and general preservation assessment of the Elm Street Cemetery for the Braintree Historical Commission in Braintree, Massachusetts. While it required several years of funding efforts, eventually in late 2009 the project was approved. Chicora's work was conducted from Tuesday through Thursday, August 20 through 22, 2010. Conducting the assessment were the author, Michael Trinkley, and associates Debi Hacker and Nicole Southerland. A total of 72 person hours were spent in Braintree gathering the information for this preservation plan.

Braintree, while typically referred to as a "town," was chartered in 2008 and is officially a city. It is located in eastern Norfolk County and is a suburban community that is part of the Greater Boston area with access to the Massachusetts Bay Transit Authority (MBTA) Red Line. Braintree is also a member of the Metropolitan Area Planning Commission's South Shore Coalition.

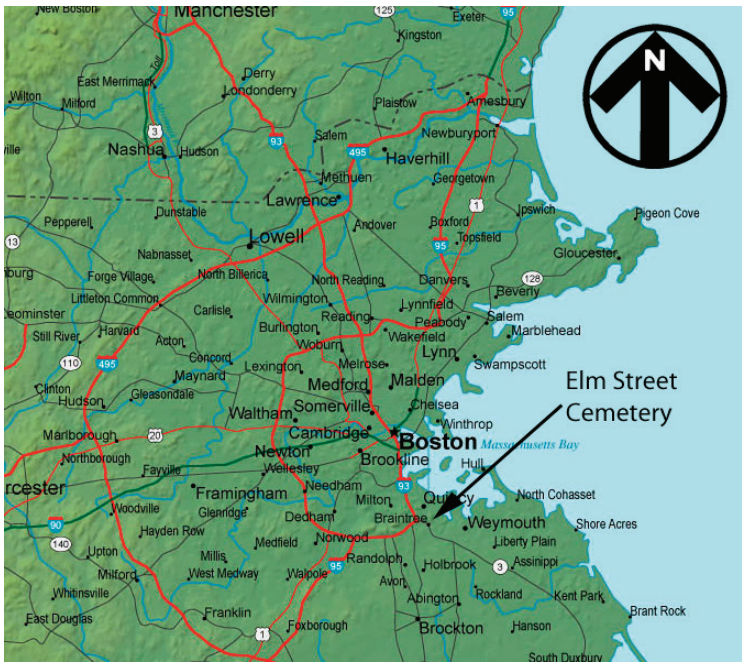

Figure 1. Boston area showing the location of Braintree and the Elm Street Cemetery.

The cemetery is situated in northern Braintree, between Route 3 to the east and Washington Street to the west, on Storrs Square along the south side of Elm Street. The cemetery is situated to the east of the MBTA route, between the Braintree and Quincy Adams stations.

Although the town was incorporated in 1640, it wasn't until 1713 that a committee was appointed to establish a burying ground and it is reported that the cemetery was acquired in 1716. The cemetery was cared for by the town with assistance from the sexton of the First Parish Church. By 1964 the cemetery had been acquired by the town and was placed under the control of the Cemetery Commission. In 2008 this commission was replaced by the Department of Public Works, Highways and Grounds Division as part of the town's reorganization.

A National Register nomination for the cemetery was prepared in 2000 and the property was determined eligible. It has yet, however, to be listed. Our inspection confirms that the cemetery is eligible, minimally, under Criterion C, distinctive characteristics. There are a number of very influential and prominent citizens buried in the cemetery. Thus, the cemetery may also be eligible under Criterion B, association with the lives of significant persons, although it would be necessary to satisfy Criteria Consideration C.

The project was coordinated

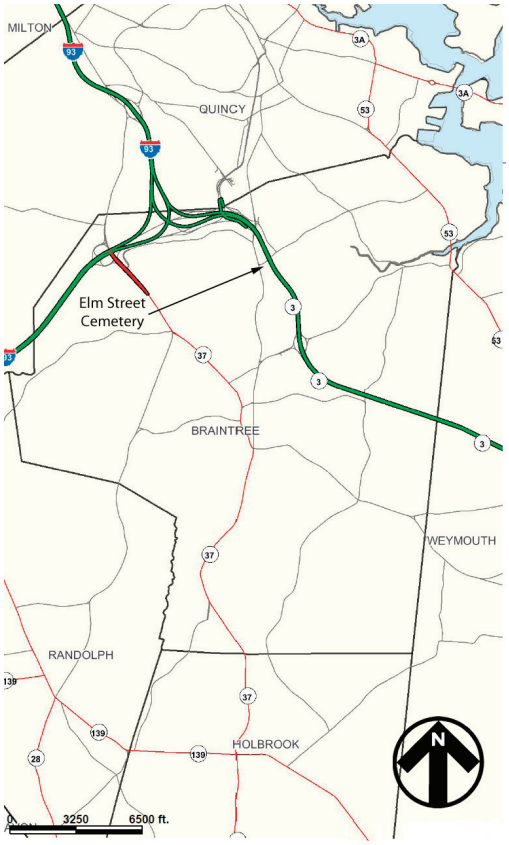

Figure 2. Braintree and the surrounding area.

locally by Ms. Christine Stickney, Director of the Town's Planning and Community Development Department. During the assessment we met with Ms. Stickney, as well as Mr. Ron Frazier, Vice Chair of the Town's Historic Commission. We also had the opportunity to speak with Walter Sullivan and John Walsh with the town's Department of Public Works, Highways and Grounds Division.

Preservation Fundamentals

Preservation is not an especially difficult concept to grasp, although the key principles are not always clearly articulated. The fundamental concepts are well presented in the Secretary of the Interior's Standards for Preservation (see Table 1).

This document reminds us – at least at a general level – of what caregivers need to be thinking about as they begin a cemetery preservation plan. Those responsible for the care of the Elm Street Cemetery should be intimately familiar with the eight critical issues it outlines.

For example, all other factors being equal, a cemetery should be used as a cemetery – not to walk dogs, not as a playground, and not as a park. And until the caregivers are able to do what needs to be done, it is their responsibility to make certain that the site is preserved – it must not be allowed to suffer damage under their watch.

Caregivers must work diligently to understand – and retain – the historic character of the cemetery. In other words, they must look at the cemetery with a new vision and ask themselves, "what gives this cemetery its unique, historical character?" Perhaps it is the landscape, the old and stately trees, the large boxwoods, or the magnificent arborvitae. Perhaps it is the very large proportion of complex monuments, or the exceptional slate markers. It may simply be that it is a unique representation of a cemetery type rarely seen in a rapidly developing urban setting. Whatever it is, those undertaking its care and preservation become the guardians responsible for making certain those elements are protected and enhanced (whether they are particularly appealing to the caregivers or not).

Whatever conservation efforts are necessary must be done to the highest professional standards; these conservation efforts must be physically and visually compatible with the original materials; these conservation efforts must not seek to mislead the public into thinking that repairs are original work; and the conservation efforts must be documented for future generations. If the caregivers aren't conservators, it is their responsibility as the stewards of the property to retain a conservator appropriately trained and subscribing to the Code of Ethics and Standards of Practice of the American Institute for Conservation (AIC).

Table 1.
Secretary of the Interior's Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The Secretary of the Interior reminds those responsible for the resources that each and every cemetery has evolved and represents different styles and forms. It is the responsibility of care-givers to care for all of these modifications and not seek to create a "Disney-land" version of the cemetery, tearing out features that don't fit into their concept of what the cemetery "ought" to look like.

Likewise, caregivers are reminded that there will be designs, monuments, and other features that characterize the cemetery – and the caregivers are responsible for identifying these items and ensuring their preservation. Caregivers must be circumspect in any modifications, ensuring that they are not destroying what they seek to protect.

Before acting, those responsible for preservation are required as good and careful stewards to explore and evaluate the property, determining exactly what level of intervention – what level of conservation – what level of tree pruning – is actually necessary. And where it is necessary to introduce new materials – perhaps a pathway – into the cemetery, they must do their best to make certain these new elements are not only absolutely necessary, but also match the old elements in composition, design, color, and texture. In other words, if the cemetery has brick pathways, they would be failing as good stewards if they allowed concrete pathways – especially if the only justification was because concrete was less expensive.

Where conservation treatments are necessary, the Secretary of the Interior tells stewards that they must be the gentlest possible. However phrased – less is more – think smart, not strong – caregivers have an obligation to make certain that no harm comes to the resource while under their care. And again, one of the easiest ways to comply is to make certain that caregivers retain a conservator subscribing to the ethics and standards of the American Institute for Conservation.

Finally, the caregivers must also recognize that the cemetery is not just a collection of monuments and the associated landscape – the cemetery is also an archaeological resource. They must be constantly thinking about how their efforts – whether to repair a monument, put in a parking lot, or resurface a path – will affect the archaeological resources – archaeological resources that are the remains of people buried at the cemetery by their loved ones.

These are especially critical issues for the Elm Street Cemetery. The first assessment of the

cemetery, conducted in 2000, identified a variety of critical preservation issues, many associated with the failure to provide adequate care over the years. This "deferred maintenance" had caused original fabric to deteriorate. Even the landscape has been compromised by development activities on surrounding parcels and a lack of careful attention to critical management issues.

Our first recommendation, therefore, is that those assuming care for the cemetery, especially the Town's Department of Public Works, become thoroughly familiar with the Secretary of the Interior's Standards for Preservation and reaffirm their responsibility as stewards of this historical resource to ensure that future preservation efforts are consistent with sound preservation principles and practices. These standards must become "talking-points" for all future discussions and decisions made concerning the cemetery.

Administrative and Legal Issues

This section is not intended to offer legal advice – only to provide recommendations from the perspective of proactive cemetery preservation.

Braintree is responsible for the care and maintenance of four cemeteries: the Elm Street Cemetery (1.4 acres), the Plain Street Cemetery (about 5 acres), the Pond Street Cemetery (about 2.2 acres), and the Dyer Hill Cemetery (about 0.45 acre). Thus, the town is responsible for the care of just over 9 acres of cemeteries. Not all, however, are given equal care. For example, while the Dyer Hill Cemetery is owned by the town, it does not appear to have received any maintenance prior to 2006 when it was cleaned by volunteers (http://www.wickedlocal.com/braintree/fun/entertainment/arts/x563240599).

In 2008 the town changed the organization of its government to reduce costs. Prior to this reorganization the Cemetery Division (Department of Public Works) consisted of a director, superintendent of the cemetery, a caretaker, and a Heavy Motor Equipment Operator (HMEO). The recent budget for the Cemetery Division ranged from a low of $122,120 in 2005 to a high of $191,215 in 2007. During this period salaries (and salary related expenses) represented the bulk of the budget, ranging from 91.1% in 2005 to 69.7% in 2007. Funds related to cemetery improvements were almost non-existent in 2005 ($231 to set monuments, $0 for repairs, and $5,454 for improvements). By 2007 the funds for improvements had increased to $54,240. By 2008 these improvement funds were no longer included in the budget. Throughout this period the Cemetery Division budget represents a salary for only two employees – not the three identified in the town's position chart. It is also important to realize that the bulk of these funds were spent on the city's still active Plain Street Cemetery, including the expansion of that cemetery. The funding – or maintenance efforts – spent on the Elm Street Cemetery has not been determined but appears to be minimal.

By 2009 the budget for the Cemetery Division had been cut to $81,238 and the requested budget in 2010 was only $70,954. Nearly 88% of this represents the salaries for a single laborer and one part-time worker. Budget that might specifically relate to preservation issues is only $3,500, although it seems likely that most of these funds are ear-marked for the Plain Street Cemetery.

This is a very small budget for the maintenance of four cemeteries, one of which is active. It is also a very significant budgetary reduction that was apparently supported in the belief that the Assistant Superintendent would be able to use the Highway and Grounds employees for "any tasks necessary" according to a 2008 newspaper account (http://www.wickedlocal.com/braintree/news/x563239579). We are told that in spite of this promotion, only two individuals are allocated to care for the burial grounds and these individuals are also responsible for the town's parks and playgrounds. These are issues that will be returned to as we examine the level of care being provided to the property.

The revised Braintree Ordinances provide little cemetery oversight. Section 2.220.050 governs who will sell lots, who will fix the prices, and who will issue the deed. Section 2.230.060

establishes a "Cemeteries Perpetual Care Fund" for the "perpetual care of such lots" as it may apply to. We have been told, however, that these funds are not placed in escrow, but rather are mixed with the town's general accounts. As a result there really is no perpetual care fund as it is generally understood by cemeterians.

This seems contrary to Massachusetts General Law Chapter 114, Section 15, which specifies that derived funds "shall be . . . kept separate from other funds" and used for the cemetery. M.G.L. Chapter 114, Section 20 also authorizes the State Treasurer to maintain such perpetual care funds on behalf of towns and invest the funds for maximum return. Braintree should explore this as a more appropriate option that would ensure that perpetual care funds were actually used for the purpose(s) intended.

More general town by-laws include provisions against dogs defecating in public areas (6.04.130), the public consumption of alcohol (9.08.020), and the prohibition of littering (9.12.020; this provision, however, only prohibits littering in streets and on sidewalks – it does not otherwise apply to public areas).

Nowhere does the town establish basic rules of conduct for those visiting any of the cemeteries. Consequently, we recommend that some basic provisions be added to the existing ordinances:

- a prohibition against removing vegetation, littering, damaging monuments, discharging firearms, use of the cemetery for any purpose other than as a burying ground, and committing any nuisance;
- representatives of the Department of Public Works should be given the authority to "expel" violators;
- limiting the installation of any marker (at least in the Elm Street Cemetery) without prior approval, in order to maintain the historic appearance and integrity of the cemetery;
- establishing formal hours that cemeteries are open (typically set hours, such as 8am to 5pm) and making presence in the cemetery outside of these hours pro forma evidence of trespass (in a fashion consistent with M.G.L. Chapter 114, Section 42A);
- a prohibition against gravestone rubbings (at least in the Elm Street Cemetery);
- a provision that specifically authorizes the Department of Public Works to establish a flowers and grave policy; and
- an appropriate violation section establishing punishment.

A simple and relatively liberal flower policy is that all flowers or arrangements will be removed by the town 10 days after holidays *or*

Figure 3. The area surrounding the Elm Street Cemetery (2009 aerial images).

when the arrangements become unsightly. This policy will allow staff to remove faded flowers, such as Christmas decorations, after the holidays.

We also recommend that only cut or live flowers be allowed. The most significant benefit of this approach is that such flowers can be readily mulched into the landscape, thereby significantly reducing the level of maintenance effort. In contrast, plastic and fabric flowers, if accidentally mowed, create significant debris that will not decompose. Natural flowers are also far more appropriate and in keeping with the historic nature of the Elm Street Cemetery.

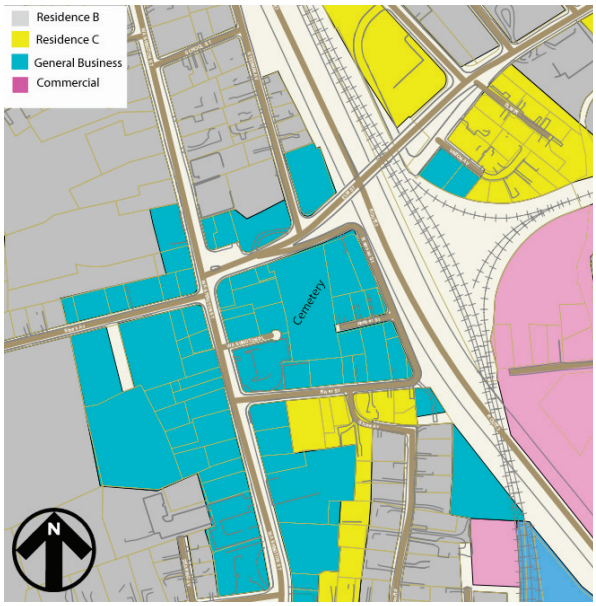

Figure 4. Zoning surrounding the cemetery.

The Cemetery, Its Setting, and Context

The cemetery is in Block Group 3 of Census Tract 4191 in Braintree. It is identified as parcel 2024-0-18 and it is listed as being owned by the Town of Braintree – First Parish Cemetery Association. The 1.43 acres are carried on the assessor's roles as having a land value of $502,600. The cemetery has a rectangular shape, measuring about 360 feet north-south by about 160 feet east-west.

The cemetery block is bounded to the north by Elm Street and Railroad Street, to the east by Railroad Street, to the south by River Street, and to the west by Washington Street (Figure 3). The cemetery itself is bounded by Elm and Railroad streets to the north and 10 private lots on the east, south, and west sides. To the east and west Hooker Street and Washington Place dead-end adjacent to the cemetery property.

The property immediately adjacent to the cemetery is zoned general business. This business zoning continues down both sides of Washington Street to the south of the cemetery and along Elm Street east to Pilgrim Highway. Beyond this business zone, much of the property within a quarter mile is zoned residential, although there are pockets of commercial property, especially to the east on the other side of Pilgrim Highway.

Topography in the cemetery appears level, but the lot actually sits on a north-south running ridge with elevations of about 94 feet above mean sea level (AMSL). While elevations have been affected by development surrounding the burial ground, elevations off the rise are generally around 90 feet AMSL, reflecting a drop of four feet or more.

On a broader scale the topography slopes from the cemetery westward to Town Brook, which feeds the Old Quincy Reservoir and eastward to the Monatiquot River. Neither of the associated flood zones affect the cemetery; the Monatiquot flood zone is about 1,000 feet to the east and the Town Brook flood zone lies about 2,500 feet to the west.

Soils in the cemetery are classified as the Woodbridge-Urban land complex. These are upland soils that have a surface layer of very dark gray fine sandy loam about 8 inches thick. The underlying subsoil is a light olive brown very fine sandy loam that transitions to a light yellowish brown very fine sandy loam. This grades into a grayish brown loam to a depth of 60 inches or more. Although the soils are moderately well drained, they often have only moderate permeability and may exhibit a seasonal high water table within 2.5 feet of the surface (Peragallo 1989).

The cemetery is situated in a relatively affluent area of the city. The median household

income in the 2000 census was $68,564, compared to the city-wide average of $61,790. City-wide about 3.8% of the residents are below the poverty level, while in the cemetery area only 3.2% of the residents are below the poverty limits. While the unemployment rate for Massachusetts is 9.2%, in Norfolk County the rate is only 8.2% and in Braintree it is 8.7% (May 2010, not seasonally adjusted).

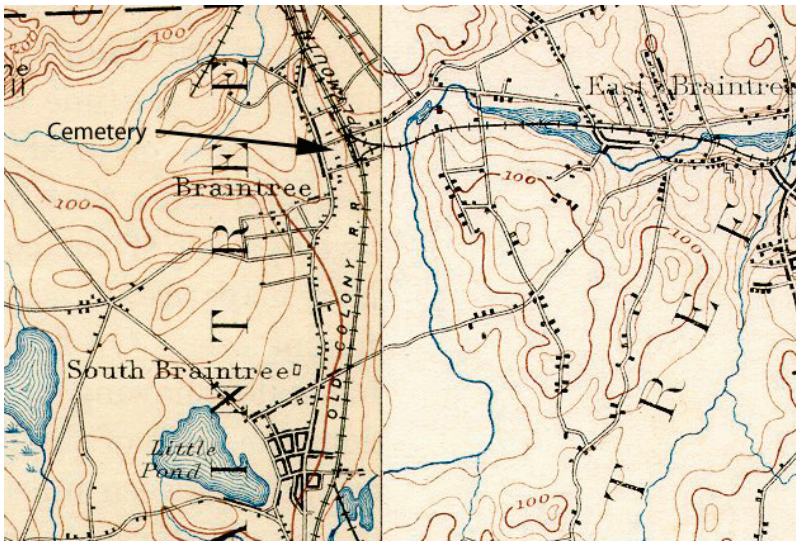

Figure 5. The cemetery area in the late 19th century (basemaps are Dedham and Abington 15' USGS topographic sheets).

These findings, however, may not apply to the properties immediately adjacent to the cemetery, which appear to be multi-family rentals.

City-wide the home ownership rate is about 66.2%. In the study area it is 78%. The median value of these residences is $224,300, slightly higher than the city average of $212,000. Only 21.5% of the housing units are renter-occupied (compared to a city average of 22.5%). Nearly 52% of the neighborhood occupants have resided at the same location for 5 years or more and a fifth of the residents around the cemetery have lived in their homes for 30 years or longer, indicating a stable population. The median age for the area is 39.6, while city-wide it is only 40 years. Nevertheless, 14.4% of the population over 5 years old reports a disability, compared to a city-wide average of 16.5%.

Braintree is predominately white (97%), although the neighborhood around the cemetery has a noticeable Asian population (3%; city-wide the Asian population accounts for only 1.5%). Over 90% of those in the census tract have graduated from high school and over a third have a Bachelor's degree or higher.

Braintree has a relatively low property crime index of 2,644 per 100,000 and overall its crime rates are about half those of the national average. In spite of the low rate, Braintree has only 2.12 officers per 100,000 residents, compared to a national average of 3 per 100,000. In addition, the bulk of these crimes (84%) are characterized as burglaries without force, larcenies, and vandalism – crimes that are of special concern to cemeteries since they indicate the potential for cemetery-related thefts.

The cemetery represents a peaceful enclave that has become surrounded by

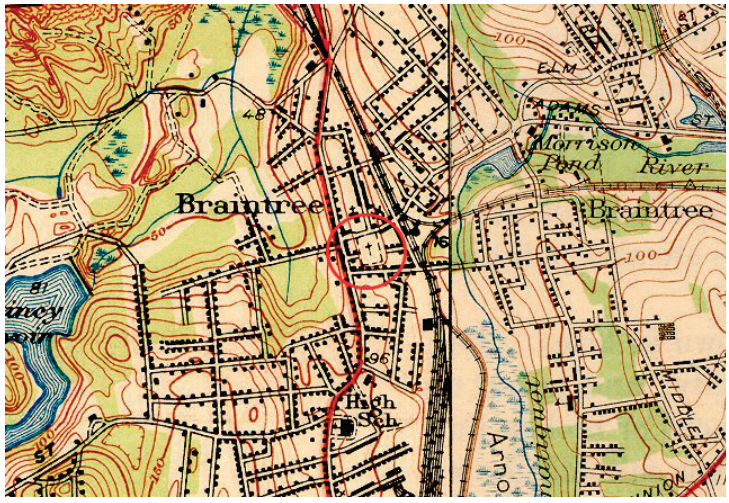

Figure 6. The project area in 1941 (based on the 1941 Blue Hill and Weymouth USGS topographic maps).

commercial and residential development. Today it fronts on where Elm and Railroad streets merge, creating a Y intersection, with Railroad Avenue being one-way.

This setting has changed dramatically since the late 19th century. In 1893 Braintree consisted of three separate enclaves of commercial and residential development, identified as Braintree, East Braintree, and South Braintree. Elm Street linked Braintree and East Braintree, while Washington Street linked Braintree with the commercial center in South Braintree. The cemetery was to the east of the commercial activities on Washington Street, bordering the railroad to the east. Railroad Street had not yet been constructed.

By the mid-twentieth century the area had developed, but the cemetery was still relatively secluded. Railroad Street had been constructed to the east of the cemetery, crossing Elm Street and continuing northward parallel to the railroad tracks.

With the construction of the Pilgrim Highway the road network was changed. Elm Street had to be elevated in order to cross the Pilgrim Highway, and it was also apparently shifted northward. Since Railroad Street could no longer form a simple intersection, it was doubled back on Elm Street and made one-way.

While it doesn't appear that the cemetery lost any ground to these road changes, the appearance of the entrance was dramatically affected. The traffic flow was made more complex and the cemetery was further isolated from daily activities. While throughout the 19th and early 20th centuries the cemetery was part of daily life, by the last half of the 20th century visiting the cemetery required a special effort and the burial ground began to be lost in the streetscape.

Factors Affecting the Landscape Character

New England contains low coastal plains, rocky coasts, river floodplains, alluvial valleys, glacial lakes, forested mountains, and alpine peaks. The ecological diversity of the region is great; five regions and 40 subregions can be identified. Many of these grade into ecologically similar parts of adjacent states or provinces.

The cemetery is situated in the Southern New England Coastal Plains and Hills, a subregion of the Northeastern Coastal Zone. This diverse area covers much of Connecticut, Rhode Island, and southeastern Massachusetts. Landforms are irregular plains with low hills with relief in some areas from 100 to 400 feet. The highest elevations are found in western Connecticut and in the project area elevations barely reach 100 feet above mean sea level.

Bedrock types are mostly granites, schist, and gneiss, although some soft marble occurs in western Connecticut. Massachusetts was historically a major producer of granite and the nearby Quincy quarries opened in 1810. Surface materials are mostly glacial till, with some stratified deposits in valleys.

Historically, forests were dominated by a mix of oaks (typically red, white, scarlet, black, or chestnut oaks), American chestnut, hickories, other hardwoods, and some hemlock and white pine. As with many other areas of New England, these forests were cleared, either for agriculture and grazing or for the production of charcoal. The American chestnut covered over 200 million acres in the Eastern United States prior to chestnut blight fungus that destroyed the trees in the early 20th century. This fungus was imported to the United States on Asian chestnut trees and it quickly decimated the native population. While American chestnuts are still present, they rarely survive to flower and produce nuts. In the early

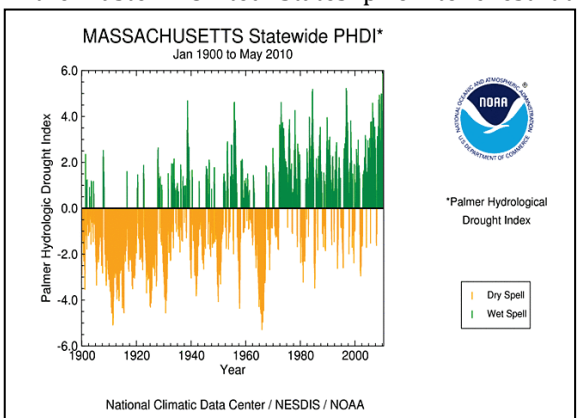

Figure 7. Drought index for Massachusetts.

1980s a backcross breeding program was begun and blight resistant chestnuts are being studied.

A variety of dry to mesic successional oak

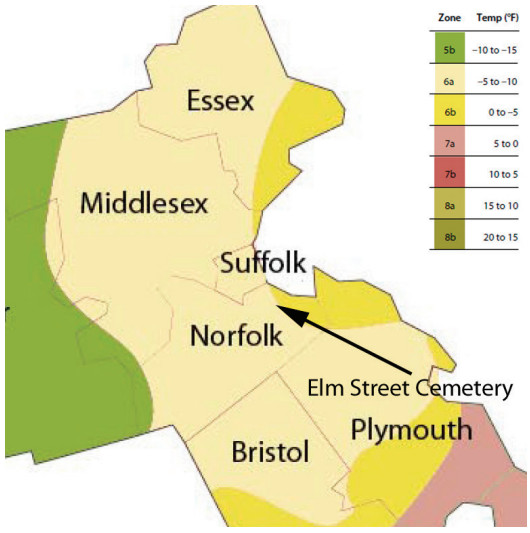

Figure 8. Plant Hardiness Zones in the vicinity of the Elm Street Cemetery.

and oak-pine forests cover the region today, along with some elm, ash, and red maple that are typical of southern New England's forested wetlands.

Braintree has a humid continental climate, characterized by cold winters and warm, humid summers. It is in a zone of prevailing west to east atmospheric flow, but is also affected by north polar and south tropical winds. This can create changeable weather patterns. Winter temperatures average 27°F, with a daily average minimum of 15°F. The average summer temperature is 69°F, with an average high of 81°F. The urban areas, however, serve to store heat so they can have temperatures 5 to 10°F higher than rural areas.

The total annual precipitation is typically in excess of 49 inches. About half of this falls between April and September. Figure 7 reveals that for the last several decades Massachusetts has been in a period of relatively high rainfall levels with only very occasional periods of drought. The average seasonal snowfall is about 46 inches, with most occurring in January and February.

The average growing season for the Braintree area is 160 days. Figure 8 shows that Braintree is on the border between Plant Hardiness Zones 6a (with minimum temperatures of -5 to -10°F) and 6b (with minimum temperatures of 0 to -5°F).

Because of the temperature range, a grass such as zoysia can be grown, but will go dormant at the first frost. Thus, it is green only about 6 months out of the year. Cool season grasses such

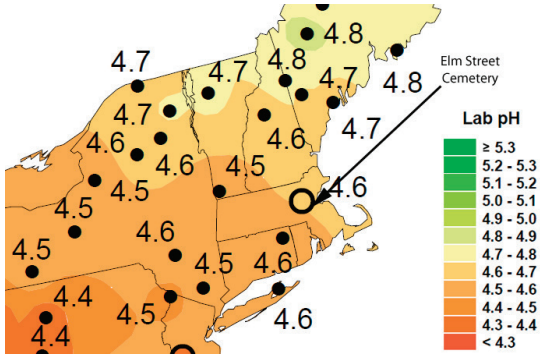

Figure 9. pH levels in the New England area.

as bluegrass, ryegrass, and fine fescue are often grown, but each has its own issues. For example, bluegrass damages easily, tends to thatch, and suffers from heat and drought. Perennial ryegrass avoids these problems, but does best in full sun and tend to be disease prone. The fescues are

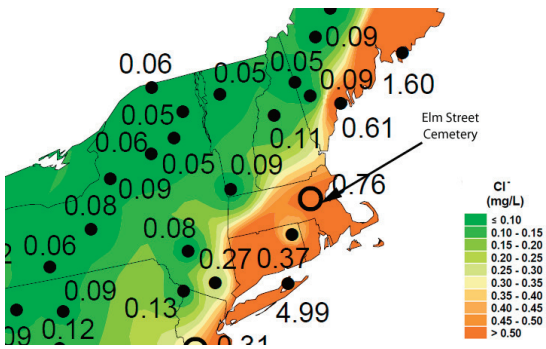

Figure 10. Chloride levels in the New England area.

shade tolerant, but can be difficult to mow.

A factor not only affecting the landscape but also stone preservation, is the level of pollutants. Based on monitoring in Norfolk County, the annual mean of NO_2 is 0.005 ppm and

the annual mean of SO_2 is 0.003 ppm. These levels result in significant levels of acid rain (see Figure 9) and deterioration of marble and many sandstones. They can also affect the long-term preservation of some slates.

Figure 10 also reveals that relatively high chloride levels dominate the Braintree area. These can lead to the corrosion of iron. This affects not only iron fences and mausoleum doors, but also the ferrous pins that were commonly used in die on base stones. While sea-salt certainly contributes to these levels, they also appear to be related to a variety of man-produced pollutants.

Recommendations

All decisions regarding modifications, alterations, additions, or other actions affecting the Elm Street Cemetery should be carefully evaluated against the Secretary of the Interior's Standards for Preservation.

Special care should be taken to protect all remaining historic fabric and the context.

Braintree should expand its existing city code to include specific provisions including limiting the placement of markers without permission, establishing the hours the cemetery grounds are open, and establishing penalty provisions. The city should also establish a decoration policy specifying how long flowers and other decorations may be placed on graves and limiting the types of decorations.

The town should evaluate its procedures for handling perpetual care funds to determine if they are consistent with good cemetery practice, as well as the General Laws of Massachusetts. Perpetual care funds should be escrowed in some fashion and invested to maximize the return, ensuring that the cemetery has a long-term financial support.

ROADS AND PEDESTRIAN ISSUES

Access and Circulation

Today access into the cemetery is by way of Elm or Railroad streets. There are two double entrance gates measuring 9'6" at the northwest and northeast corners of the cemetery, with grassed entryways leading to both. The northeastern entrance is steeper than the northwestern entrance. The gates, while closed, are not locked.

Beyond these gates and entranceways, in the cemetery, there is no well defined roadway system. In the south half of the cemetery there are what may have been carriage ways around the plots, although we cannot discern the route to these pathways from the northern cemetery section.

Given the infrequency of burials in the cemetery, there is no need for vehicular access. Maintenance activities should be conducted without bringing vehicles into the cemetery.

Pedestrian Access, Sidewalks and Pathways

Pedestrian access is provided at the two entrances at the northwest and northeast corners of the burial grounds, immediately adjacent to the gated vehicular entrance points. The pedestrian passageways are 20" in width and ungated.

There appears to be little pedestrian use of the cemetery at present. There are likely a variety of reasons, but some certainly include the lack of convenient parking and a lack of promotion.

There are only three parking spaces in front of the cemetery and these appear to be quickly taken in the mornings and were rarely open during our assessment. There is room for one car in front of each gate.

The cemetery is not on any of the six Braintree walking routes promoted by the non-profit WalkBoston organization (http://www.walkboston.org/resources/images/braintreeMap.pdf) and the town's website

Figure 11. Entrances to the cemetery. Top photograph shows the east entrance. Bottom shows the west entrance.

Figure 12. Examples of the pathways in the cemetery. Top photograph shows the carriage way on the east side of the southern section. Bottom photographs shows the open passage along the east side in the north section.

(http://www.townofbraintreegov.org/) fails to promote any of the cemeteries as historic resources (in fact, the website does not mention the burials grounds, provide histories, or maps).

Sidewalks in this area of Braintree are variable from 5' to 8' in width and are not found on all roads. Much of Washington Street outside the business district lacks sidewalks. In the immediate vicinity of the cemetery Elm Street has 8' sidewalks that narrow to 5' on one side of Railroad Street. There are four buses that operate on Washington Street, with the nearest stop at the intersection of Elm and Washington. Even this, however, does not seem to promote a great deal of pedestrian traffic in the cemetery.

The primary visitors we observed during our three day assessment were dog walkers. This group unfortunately uses the cemetery as a dog run. Dogs were observed urinating unrestrained on stones and none of the walkers collected fecal remains. Both are extraordinarily disrespectful, as well as damaging to the landscape and stones. One of the unrestrained dogs ran at and bit an assessor; fortunately without breaking the skin.

The town already has an ordinance requiring all animals be leashed (6.04.060), as well as making it a criminal violation to allow an animal to defecate on public property (6.04.130). These laws must be enforced.

There are no clearly defined pathways in the cemetery. This is also not considered a significant problem. Cemetery use is light at present. It is unlikely that paths would have been part of the layout of the original (northern) portion of the cemetery. Such designs tend to maximize available plots and there was little thought given to pedestrian movement since cemetery visitation was limited to burials.

It is possible, however, that pathways were incorporated into the southern expansion of the cemetery. The layout of the plots does suggest pathways or access was provided to the plots, although it is not certain how these pathways were marked or paved.

Universal Access

The primary limiting factors for ADA compliance or universal access at the cemetery are the 20" wide pedestrian access points, the grassed slopes up to these access points, and the grassed walkways. Accessibility Guidelines call for entrances generally 36" in width and access routes where slopes do not exceed 1:10. The surface must be "firm and stable." The extensive modifications necessary to achieve these goals would be out of character and dramatically alter the historic landscape and context. At the present

Figure 13. Damage caused by dogs in the cemetery. Top photograph shows dog feces in the cemetery. Bottom photograph shows damage done to a stone by dog urine.

level of use we are not convinced that there is a demand adequate to justify either the expense or the damage to the historic fabric.

In addition, the ADA or the Rehabilitation Act of 1973 is generally not interpreted to apply to cemeteries by the Department of Justice. Nevertheless, we are an aging population and it would be appropriate for the town to consider an alternative approach. One might be to create a "virtual tour" of the cemetery on-line. This would be attractive to a broad range of individuals and would promote the town's historic cemetery.

Another low impact approach suitable for tourism is to ensure that there are interpretative plaques and exhibits at the entrance – allowing disabled visitors to experience and learn about the cemetery. These could be mounted on the fence at the entrance to the property.

<u>Recommendations</u>

The cemetery is underutilized by the public, largely because it is poorly promoted by the town. Efforts should be made to better promote the history of the Elm Street Cemetery and encourage additional visitation.

The cemetery is being inappropriately used by dog owners, who are allowing their animals to run off-leash. Dogs are urinating on stones and feces are not being picked up. The cemetery should be clearly posted prohibiting any animals except service animals – and this must be enforced by the town.

The town should explore options for making the cemetery accessible. Options include on-line virtual tours and interpretative plaques mounted at the sidewalk entrances.

LIGHTING AND SECURITY ISSUES

Vandalism

The town is not aware of vandalism at the cemetery, other than that of grave desecration by a teenager about a decade ago. The perpetrator was identified and convicted. The town reports that they have no formalized mechanism for reporting vandalism.

Vandalism was noted during the 1999 assessment. During our assessment we found multiple examples of relatively recent vandalism – evidenced by recently broken stones (the marble still being crisply white) and toppled stones (too heavy to have fallen accidentally). Unfortunately, without a uniform and written reporting mechanism, it is impossible to determine how recently the vandalism has occurred, how frequently, or what part(s) of the cemetery may be at greatest risk.

It is disturbing that the town is unaware of the vandalism in spite of the 1999 warning. This suggests that the Highway and Grounds staff are not adequately aware of the cemetery and its stones.

While property crimes are not especially high in the cemetery vicinity, the police do not have high visibility (during our assessment we observed a patrol on Elm Street only once and did not see any patrols on Railroad Street). We know also that the Highways and Grounds Division does not have a permanent cemetery crew that could not only improve maintenance (there is a correlation between maintenance and vandalism), but also provide a visible presence in the cemetery.

The cemetery is fenced, but the protection offered is imperfect and the perimeter is porous. There is an iron fence on the north side that allows constant pedestrian access, while on the remaining three sides there is a stone wall with a light iron picket fence attached. Much of the picket fence is missing. During our assessment we observed two individuals cut through the cemetery from the northeast to the southwest corner, where they easily hopped over the stone wall in order to access a nearby convenience store.

At the present time there is no systematic inspection process – either by the town or by a caregiver group. It seems unlikely that the Highways and Grounds staff would recognize vandalism for what it is, or have any idea when it occurred. It will be difficult to ascertain the level of damage the cemetery suffers without some method of periodic inspection.

With the current stone-by-stone assessment, the town has a baseline survey of all stones requiring conservation treatments. With this photo documentation in hand it will be possible for the town to not only begin budgeting for the necessary repairs, but also recognize new damages when they occur.

We recommend that the staff of the cemetery be trained to recognize vandalism, as well as being periodically reminded to be on alert for evidence of vandalism.

We also recommend that the town create a friends group – perhaps under the oversight of the Historical Commission – that could begin "patrols" of the cemetery. The goal is not to have these groups confront vandals, but to be eyes and ears, providing a public presence in the cemetery and immediately reporting any suspicious activities. There are a number of people interested in cemeteries and cemetery preservation. We do not believe it would be difficult to organize such a group to help protect such a valuable town resource.

Another approach we recommend is for representatives of Planning and Community Development to contact the residents and even

Figure 14. Examples of recently vandalized stones. The top photograph shows a heavy stone on a level base that would not have toppled without assistance. The lower photograph shows a freshly broken marble edge.

businesses immediately adjacent to the cemetery and enlist their assistance in the protection of the resource. They should be specifically asked to call if they see any suspicious activities in the cemetery. They should also be asked to be especially vigilant during weekends and holidays.

These steps will help maximize the attention that the cemetery receives. Coupled with other recommendations offered by this study, it will further reduce the risk of significant vandalism.

We recommend that Highways and Grounds develop a form designed for the reporting of cemetery-specific vandalism. This form should include several items:

- What was damaged, with specific information concerning each stone, including the name and lot/plot?
- How was the stone damaged (toppled, broken into how many fragments, scratched, etc.)?
- Where the stone is now (was the broken stone gathered up for storage, if so, where is it stored)?
- An estimate of when the damage occurred. This should routinely include the last time the stone was known to be undamaged.
- An estimate – from a conservator – of the extent of the damage and cost for repair.
- A photograph of the damaged stone.
- When police were notified.
- When police responded and took a report, with a copy of the report attached.
- The outcome of the police investigation.

It is critical that the city report each and every case of vandalism, regardless of extent, to the police. The police must be educated concerning the historical value of these stones and the financial cost of the damage to ensure that damage and vandalism is taken seriously. If the damage is recent, the police should be expected to assign crime scene investigators to collect evidence. This evidence may include shoe prints in soil or on stones, discarded beverage containers with finger prints, collection of evidence such as cigarettes, and collection of any eye witness

accounts. The police should be expected to assign an investigator and this individual should be expected to treat this as a real crime deserving of real investigatory efforts.

Figure 15. Examples of ironwork that should be secured and protected. Leaving these items scattered in the cemetery is disrespectful and invites theft of irreplaceable historic fabric.

It is also essential that vandalized stones be repaired. Allowing broken stones to remain where they fell is not only disrespectful, but it gives the entire cemetery a run-down and uncared for appearance. We know of no community that would allow park benches or picnic tables to remain in a park in a vandalized condition – they would be immediately repaired or replaced. Likewise, it is critical that vandalized stones be repaired by a stone conservator.

Nothing suggested here, however, is intended to take the place of routine police patrols. A police presence can be a major deterrent to cemetery-related crimes and is a critical element in cemetery crime prevention. It should be relatively easy to ensure that City Council directs the Police to make routine (not occasional) patrols past the cemetery during open hours.

While there is no convenient access into the cemetery, the police can drive Railroad Street, allowing them to slow and look into the cemetery. At night they can shine their spotlight into the cemetery. These patrols are especially important on long weekends and holidays when alcohol consumption increases. Halloween is a particularly common time for cemetery vandalism.

Cemetery Lighting

The south side of Elm/Railroad Street, adjacent to the cemetery, is lined by four decorative street lamps (each has a 175-watt fixture with dusk to dawn lighting). Also present on Elm Street near the cemetery are two standard single arm steel brackets with cobra head luminaires mounted on existing utility poles.

Lighting is sometimes seen as reducing vandalism. There are two problems with this approach. The first is that cemeteries were not lighted historically. Thus, the introduction of lighting detracts from the historical integrity of the properties, changing the historic fabric. The second problem is that lighting is only useful if

there is someone guarding the property, using the lighting to identify problems. This is not the case in most cemeteries, including the Elm Street Cemetery.

We do not recommend that any additional lighting be installed.

Hardening Targets

Thefts in cemeteries nationwide have dramatically increased. The reasons for this are two-fold. First, there is an increasing market for gates, urns, ironwork, and statuary – created by an increase in upscale garden design and individuals willing to pay large sums for original artwork. Second, there is less attention being paid to cemetery fixtures, largely the result of decreased maintenance budgets and fewer police patrols.

The cemetery contains a variety of ironwork, including fence panels simply leaning against intact fence sections. These would make a very convenient target and would require no more than 5 minutes to be loaded in a pickup truck and stolen.

It is a simple maintenance step to use woven stainless steel wire to secure ironwork. The cost is less than $20 and the time involved is about 15 minutes. This is something that the town's Highway and Grounds staff can easily accomplish or that would be an excellent community project. See the NPS article, http://crm.cr.nps.gov/archive/25-02/25-2-15 .pdf for additional information.

Fragmentary stones will be discussed in greater detail in a following section, but it is critical that damage be repaired to prevent loose items from being readily available to thieves or souvenir seekers.

Recommendations

We recommend that a multifaceted approach against vandalism be taken:

- **Staff should be periodically reminded to be alert to evidence of vandalism.**
- **A friends group should be created to assist in patrolling the cemetery.**
- **Residents adjacent to the cemetery should be contacted and asked to report suspicious activities in the cemetery.**
- **The town should develop a form specifically for cemetery-related vandalism.**
- **All vandalism should be immediately reported to the police and should be thoroughly investigated.**
- **All vandalism should be repaired as soon as possible.**
- **Police patrols should be increased and made a regular, daily occurrence.**

Loose ironwork should be secured using woven stainless steel wire or collected and safely stored until repair is funded.

CEMETERY FIXTURES AND FURNISHINGS

Cemetery Buildings

Other than the tombs discussed below, historical research points to the presence of a "hearse shed" built in the northeast corner of the cemetery about 1824. It remained there only seven years, reportedly being moved about 1831 (Barbara Donohue, personal communication 2010).

A hearse shed is expected to leave an ephemeral archaeological footprint. Nevertheless, activities in the cemetery, in compliance with the Secretary of the Interior Standards, should recognize the possibility of archaeological remains.

Demolished Tombs

We have documented, through plots, transcriptions, and oral history, that there were at least 14 tombs in the cemetery other than the three still present (Hon. E. Thayer at the northwest corner, S.V. Arnold on the west central side, and Vinton at the south edge). The names associated with these 14 tombs are shown in Table 2.

Table 2.
Demolished Tombs Once in the Elm Street Cemetery

Tomb	Individuals
1	Hayward
2	French, J., C. Hollis, S. French
3	Arnold, Moses
4	Hollis, David
5	French, Benjamin Vinton
6	French, Moses, Jr.
7	French, Jonathan & Sarah B. French
8	Thayer, S.
9	Hobart, Elisha & Jona. Wild
10	Hayden
11	Denton, James & Jonathan
12	French, Asa
13	Thayer, Solomon
14	Hobart, Abraham

Information based on transcription prepared in 1904 and confirmed in 1941, available at http://thayerfamilies.com/phocadownload/Elm-Street-Cemetery-Braintree-MA-FINAL.pdf

At least three tombs were demolished by the town about 1991 (John Walsh, personal communication 2010). Mr. Walsh reports that he was ordered to tear the tombs down, fill the vaults with sand, and grade them over. The granite from the tombs "disappeared." The two doors still found in the cemetery are reported to have come from these tombs. The doors have the names "J. & S. French and C. Hollis No. 2" (representing Tomb 2) and Elisha Hobart (representing Tomb 9).

When the other tombs were destroyed is not known, but was between 1941 and the early 1990s. At some point a series of lawn markers were placed at the north edge of the southern section, apparently "commemorating" the destroyed tombs. Whether these markers accurately identify the original location of these tombs is unknown, but should be further investigated.

The loss of these tombs is tragic and has dramatically compromised the landscape of the cemetery. It has affected the integrity of the property and likely, especially in combination with the dramatic alteration of the planned landscape and vegetation, the eligibility of the cemetery for the National Register of Historic Places.

It is questionable whether the town had the authority to demolish these tombs. Massachusetts General Law, Chapter 114, Section 29 clearly establishes that tombs in public cemeteries are held indivisible "and upon the decease of a proprietor of such lot the title thereto shall vest in the heirs at law or devisees of the deceased." Moreover, M.G.L., Chapter 114, Section 38 requires that there be a hearing prior to the closing of any tomb – and no such hearing has been identified in town records.

Figure 16. Remnants of two tombs demolished by the town ca. 1991.

Furthermore, M.G.L., Chapter 272, Section 73, makes it a crime to "willfully" destroy, mutilate, deface, injure, or remove a tomb. Anyone engaging in such an activity is subject to imprisonment for up to 5 years and a fine of up to $5,000.

Immediate action must be taken to secure, treat, and properly display the two remnant doors. These are the last vestiges of these family tombs and they should be appropriately exhibited. The town must also identify and mark the location of the tombs that have been destroyed, ensuring that the remains are accurately marked.

Honorable E. Thayer Tomb

This mound tomb is situated at the northwest corner of the cemetery, fronting Elm Street. In 1999 the tomb was identified and recommendations were made to stabilize the tomb. None of the recommendations appear to have been implemented.

This tomb is situated on a roughly parallelogram-shaped lot measuring 30.9 feet along Elm Street and 29.7 feet in depth along its eastern side.

The tomb measures 10'6" along its front and 15'6" in depth. At its highest point the tomb rises 6'0" above the current ground level, although the central door appears to be buried at least a foot below grade. The tomb is situated at the rear of the lot; in the front there is granite curbing. There may be entrance steps down to the tomb.

The front wall consists of smoothly dressed ashlar granite originally set in lead. Less than 50% of the joint lead remains and the majority of the joints are filled with a dark gray mortar. Analyses of these mortars is provided in Appendix 2.

The side and rear walls consist of semi-dressed broken ashlar granite, set with a light gray mortar. The mortar joints exhibit a raised ribbon joint. At least one episode of repointing is evident, using a dark gray, hard mortar. Much of this work is poor, with the mortar smeared across the joints. Subsequently there was another repair episode, with a light brown mortar used to infill cracks. The top of the tomb is grassed and appears stable, although the interior of the tomb was not inspected.

The iron door is fabricated to resemble an eight-panel door with hinges on the right. A

Figure 17. Honorable E. Thayer tomb. Upper left is the Thayer yard. Upper right is the front (north) façade. Lower left is the east façade. Lower right is a close-up of the east façade showing different mortars.

lockable hasp is riveted to the left side of the door. The upper right hinge strap has separated from the door. The door is ½" thick and 2'2¾" in width.

This tomb requires repointing. The sides and rear should use a 1:2.5 mix of NHL 5 and sand to match the original mortar in texture and color. Joints should be finished to match the existing raised ribbon joint. Hard, smeared mortars should be removed. The front of the tomb should have mortar removed and the joints pointed with lead to match the original work.

The door should be excavated from the soil. If steps are present they should be evaluated for any conservation treatment necessary. The strap hinges should be freed from the pintels. The upper hinge should be straightened and reattached to the door.

The door should be cleaned of adhering soil and any spalling corrosion. A coat of Rust-Oleum Rust Reformer should be applied, followed by two light coats of Rust-Oleum High Performance Flat Black paint.

The interior of the tomb should be inspected for water migration, settlement cracks, or other problems. The door should be locked using a high security padlock.

S.V. Arnold Tomb

This mound tomb is situated at the western edge of the cemetery, built into the western boundary wall, just within the southern or new section of the burial ground. The tomb, which faces south, measures 12'6½" in width and about 18'6" in length. It is 5'7" in height.

Figure 18. S.V. Arnold tomb. Top photograph shows the south façade. Middle photograph shows the east façade. Bottom illustrates the north façade.

The south façade is constructed of roughly dressed ashlar granite set in a fine, very light gray mortar. The west and north facades consist of semi-dressed broken ashlar granite interspersed with rubble. Mortar is visible in some locations, but in other locations mounded soil obscures construction details. These sides may not have been intended to be visible. The top is vegetated.

Set at the top middle of the south façade is a marble plaque measuring 2'2" by 1'0" by 1". It is inscribed "S.V. ARNOLD TOMB. / Put away all partial deeds and / set up Christ, the only sure way, / the truth and the light. Pattern / after him and possess his spirit." The iron door had a name plate, but it is today missing. The portion of the door exposed measures 2'2" in width and 3'8" in height. There are two strap hinges on the left side and a hasp that was on the right is also missing. About 4" of the door is buried in soil and a large granite block has been buried in front of the door. The interior of the tomb was not inspected.

This tomb also evidences at least one episode of repair. A light gray, hard mortar with abundant rounded inclusions has been applied in some areas as a rounded bead and smeared over joints in other areas.

This tomb requires repointing using a 1:2.5 mix of NHL 5 and sand to match the original mortar in texture and color. Joints should be finished to match the existing raised ribbon joint. Hard, smeared mortars should be removed.

The northeast corner appears to be collapsing. These stones should be removed and reset using a dry laid technique (unless evidence of original mortar use is identified in this area).

There is remnant graffiti on the lintel above the door. This should be removed using a stripper safe for stone, such as the Cathedral Stone MasonRE 301, 303, or 305.

The door should be excavated from the soil. If steps are present they should be evaluated for any conservation treatment necessary. The strap hinges should be freed from the pintels.

The door should be cleaned of adhering soil and any spalling corrosion. A coat of Rust-Oleum Rust Reformer should be applied, followed by two light coats of Rust-Oleum High Performance Flat Black paint.

The interior of the tomb should be inspected for water migration, settlement cracks, or other problems. A new hasp should be fabricated for the door similar to the one still extant on the Thayer tomb. The staple is damaged and must be repaired. The tomb should then be fitted with a high security padlock.

Figure 19. Vinton tomb at the south edge of the cemetery.

Vinton Tomb

The Vinton tomb is situated at the southern edge of the cemetery, facing north. It consists of a double compartmented granite faced mound tomb with granite wing walls. The top is grassed.

The tomb measures 21'5½" in length (excluding the wing walls) and at the peak of the gable is about 6'10½" in height. In front of the tomb the ground is recessed by 9" and the stepped area measures 5'6" in width. It is floored using four slabs of a red sandstone.

The 1999 assessment reported that the wing walls "have displaced outward at least two inches and have dragged the main lintel stone with them." This is an error. The lintel was set to have an overhang (similar to both the Arnold and Thayer tombs). We also observed no evidence that the wing walls are actively moving.

The marble plaque on the left is missing, as is the marble door on the right. The door has been replaced by a sheet of steel measuring 3'11" by 2'8" that is held in place with two wood wedges. The marble door handles are broken and the door, set on a lead threshold or cushion, is loose, but stable. The remaining marble plaque measures 2'3¾" by 2'11" by 1¼" and contains the names of six individuals (Betsy Snow Giles Vinton, Phebe W. Clisby Vinton, Josiah Vinton, Charlotte W. Vinton, Edward Payson Vinton, and William Vinton Alden).

The tomb requires repointing using a 1:2.5 mix of NHL 5 and sand to match the original mortar in texture and color. We did not identify how the joints were originally finished; therefore, the repointed joints should be compacted with a churn brush to give them a weathered appearance.

The steel door replacement should be removed and a marble sheet 1½" thick installed to better match the remaining door.

The missing marble plaque on the left side of the tomb should be replaced, using the information available at the Braintree Historical

Society. The lettering should as nearly as possible match the remaining plaque. The new plaque should be mounted using stainless steel fittings.

As with all of the tombs, the interior should be inspected to ensure there is not hidden damage and the mound is stable.

Figure 20. Elizabeth Niles box tomb. Top photograph shows the north and east facades. Bottom photograph shows the south and west facades.

Elizabeth Niles Tomb

This is a granite box tomb located at the front west side of the cemetery, just within the entrance. The box is constructed of rough hewn granite stones and measures 2'10" by 5' and is 2'7" in height, capped with a rough granite stone. There is a slate tablet mounted into the granite on the north face that measures 2'2½" by 1'8".

There is a settlement crack on the east face. The mortar used in this tomb is similar to that found elsewhere on the site – a hard, gray mortar with much rounded grit. There is a pentagram spray painted on the south side of the tomb. This vandalism was reported in 1999, but was apparently never cleaned.

The slate tablet, reported to be cracked in 1999, is today clearly broken although it is still held securely in place. There is, in addition, edge damage to the slate.

The construction of the tomb and mounting of the slate tablet suggests that this may be a rebuilt grave. Additional research should be conducted to determine if the grave can be documented in early photographs of the burial grounds.

The tomb requires repointing using a 1:2.5 mix of NHL 5 and sand to match the original mortar in texture and color. We did not identify how the joints were originally finished; therefore, the repointed joints should be compacted with a churn brush to give them a weathered appearance.

The slate tablet break should be infilled with Jahn M160 to prevent water intrusion and additional freeze-thaw damage.

The paint vandalism should be immediately removed using a stripper safe for stone, such as the Cathedral Stone MasonRE 301, 303, or 305.

Elm Street Fence

Described in the 1999 assessment as "Gothic Revival fencing," this decorative cast iron

fence bears strong resemblance to fences attributed to the Wood and Perot foundry of Philadelphia which operated from 1857 to 1865. Nevertheless, the 1999 assessment attributes the fence to ca. 1900 and speculates that it was erected shortly after the 1892 founding of the First Parish Cemetery Association. Regardless, this fence is an integral part of the cemetery landscape and the town should be very proud – and protective – of this extraordinary resource.

The fence consists of panels set into line posts. Each panel along Elm Street measures 8'6" in length and is 2'9" in height. Those in the two drives are shorter, measuring 7'7" in length. They are supported by line and corner posts measuring 4'4" in height and set on 1' square granite blocks, infilled with concrete coping.

The panels consist of a two-piece top rail and single-piece bottom rail. These are connected to the line posts using an internal tab. The two pieces of the top rail are connected to each other using rivets.

The fence evidences remnant black paint that has largely failed. The use of LeadCheck Swabs (with a sensitivity of 1 µg on solid surfaces) indicates that regulated lead-based paint is not present on the fence.

Although the 1999 assessment reported that the fencing was "generally free of deterioration from corrosion," today the corrosion is extensive and is beginning to affect the stability of the fence. It is critical that the fence receive minimal treatment to stabilize the fabric. While additional damage may become apparent as the fence is cleaned and treated, the recommendations below represent a minimal level of intervention.

We recommend garnet grit blasting of the fence to clean grey metal, at least equivalent to a Near White Blast as defined by SSPC Specification SP 10 or NACE 2. On-site testing must be used to determine the correct garnet grade since this depends, at least partially, on the profile/coating in mils present on the objects. We anticipate that 30-80 mesh may be adequate. The garnet grade must also be selected to produce an even profile. It must also be chemically inert, free of heavy metals, and contain less than 0.5% free silica. All work blasted in one day must be coated on that day.

For the fence we recommend a polysiloxane paint such as Ameron® PSX 700. A primer such as Dimetcote® 21-9 or Amerlock® 400 should be applied.

Coatings should be applied to produce an even film of uniform thickness. Special attention should be given to edges, corners, crevices, and joints. The coatings must be applied to produce finished surfaces free from runs, drips, ridges, waves, laps, brush marks, and variations in color, texture and finish. In general, the paint should be applied in accordance with SSPC-PA1, Paint Application Specification No. 1. Shop, Field and Maintenance Painting.

Special care must be taken to prevent drips and spatters on the stone and concrete curbing below the fence, as well as nearby tombs and stones.

There are numerous areas of the fence that also require caulking in order to eliminate moisture infiltration. An appropriate caulk is an elastomeric construction grade sealant, such as Sikaflex 1a.

Welding, if performed using continuous (not spot) welds that are ground smooth, is acceptable where little or no expansion or contraction of the iron is anticipated. Much of the existing welding, however, has failed. These old welds should be removed, the metal cleaned, and the work repeated. Only skilled craftsmen should be allowed to work on the fence and all such work must be under the direct supervision of a qualified conservator.

Historic parts are found lying on the ground or leaning against the fence just inside the cemetery. All such parts should be collected and stored for repair, replacement, or replication. They should not be ignored and allowed to be stolen, destroyed, or treated as "surplus."

Figure 21. Elm Street fence. Upper left photo shows a fence section along Elm Street in the soil. Upper right photo shows a fence section at the west gate in the soil. Center left photo shows the east gate; note areas requiring caulking, as well as the displaced gate post caps. Center right photo shows a broken weld, as well as corrosion and pitting of the fence. Bottom left photo shows extensive corrosion at bottom rail connector. Bottom right photo missing top rail cover, as well as damaged connector.

Given the significance of the fence, the town should place its repair and maintenance as a very high priority.

Specific issues are itemized below:

- East gate
  - Caulk bottom rail
- Four panels, E side
  - Remove soil for a distance of about 4'
  - Post 2 – interior rod no longer connected, remove; weld finial, grind weld smooth and caulk as necessary
  - Panel 3 and Post 3 – weld extension brackets onto top and bottom rails and mount in posts
- Frontage along Elm Street
  - Panel 1 – down, replace; reattach 1 picket, extend bottom rail, replace top and bottom rail cover
  - Panel 2 – reattach top rail cover
  - Panel 3 – replace top rail cover
  - Panel 5 – repair top rail cover (half is present, rest is on grass)
  - Panel 6 – begin regrading of the soil to remove from bottom rail
  - Panel 7 – reattach panel to line post on the right side; continue grading, taking care at tree to prevent root damage
  - Panel 8 – post at right side is missing finial; cut protruding rod, remove trash from within post, cap, and caulk; continue grading
  - Panel 9 – weld broken top rail cover; shift outward and weld to right line post; continue grading
  - Panel 10 – repair old weld at left side at the line post; reattach to the right line post at the bottom; continue grading
  - Panel 11 – repair failed weld at left side at the line post; realign top rail at break in center; continue grading
  - Panels 11 and 12 – finial and line post – reseat by replacing interior portion of interior rod if possible; otherwise weld to seat correctly
  - Panel 15 –weld top rail, left and right, caulk
- Four panels W side
  - Regrade to remove bottom rail from soil
- Gate, W side
  - Caulk at bottom rail

Perimeter Fence

A lightweight iron picket fence is attached to the capstones on the east, west, and south walls. Each panel is 7'10¾" in length and 1'9" in height (except for the fence at the side of the Thayer tomb, where it is 2' in height. The panels consist of 23 pickets measuring ⅜" square set at a 45° angle 4" apart on 1⅜" channel rails. The panels are back braced on the cemetery side using a ½" bolt set into lead and supported by a foot in the middle of each panel.

There are 28 sections or panels missing (7 on the east side, 10 on the south side, 10 on the west side, and one at the Thayer tomb). Unfortunately, only eight loose sections were identified, although we have been told that a few fence sections were placed in the Vinton tomb. While not itemized, we also noted several brackets or supports scattered in the cemetery; some may also be outside the cemetery wall.

The failure to maintain this fence has resulted in extensive damage to the mounting braces and central panel supports. It will be necessary to replicate these parts. One firm that can replicate these supports is Robinson Iron in Alexander City, Alabama. We estimate that at least 40 mounting braces and 45 central panel supports will be necessary.

There is also damage from trees and limbs hitting the fence. Some of this damage can be easily removed by gradually heating and straightening sections. This should be accomplished where possible.

Some sections of the fence are totally obscured by trash vegetation originating in adjacent parcels. The owners of these parcels

Figure 22. Perimeter fence. Upper left photo shows bent section from old tree or limb damage. Upper right shows ongoing damage from trees off the cemetery, leaning into the fence. Center left photo shows vegetation from adjacent parcels obscuring the fence. This trash vegetation should be removed. Center right photo shows a central panel support that is no longer attached to the stone wall. Lower left photo shows a central panel support that has completely failed because of extensive corrosion. Lower right photo shows a failed panel support. Note also the extensive corrosion on the fence and support.

should be required to remove this vegetation from the fence. It is not only disfiguring the fence, but makes maintenance impossible.

Minimal work on this fence involves the painting of the fence and replacement of those sections identified. In so far as possible, the identified sections should be used to replace lost sections in the southwest corner of the cemetery to minimize hopping of the wall in this area.

Since no paint remains on any of this ironwork, we recommend wire brushing to release obvious scale and corrosion, then the use of a rust converter as a primer. Of the three that were successfully tested by the Canadian Conservation Institute, Rust-Oleum's Rust Reformer is the least expensive and most readily available (it is available, for example, from Grainger's Industrial Supply for about $80/gallon). We recommend one coat of the Rust Reformer. This can be applied over stable corrosion and the product does an excellent job of converting the corrosion into a stable base for a top coat of alkyd paint.

Following the Rust Reformer we recommend a first coat of flat white. If coverage is not complete, the Rust Reformer will show through this white paint, providing a visual indicator that additional work is necessary.

Next should be the top coat of flat or semi-gloss black. The white undercoat will immediately reveal any area where the black top coat has failed to provide adequate coverage. The use of these alternating colors helps ensure thorough coverage. The paint coatings should not be applied thickly, as thick coats hide detail, cure poorly, and will often prematurely fail.

Generally painting should be by brush – if sprayers are used all nearby monuments and shrubbery must be carefully wrapped in tarps to prevent overspray.

The 1999 assessment has recommend that sections be moved to ensure a complete run along the east and west sides of the property, with a few fence sections erected at the south. It has also been recommended that the new fence be 4-6' in height.

While we concur that eventual replacement of lost sections is appropriate and that this may necessitate the use of new fabric, we cannot concur with recommendations to dramatically alter the appearance of this fence. Sections 4-6' in height would dramatically alter the visual appearance of not only the fence itself, but also the cemetery landscape. Since there is no practical means of controlling access off Elm

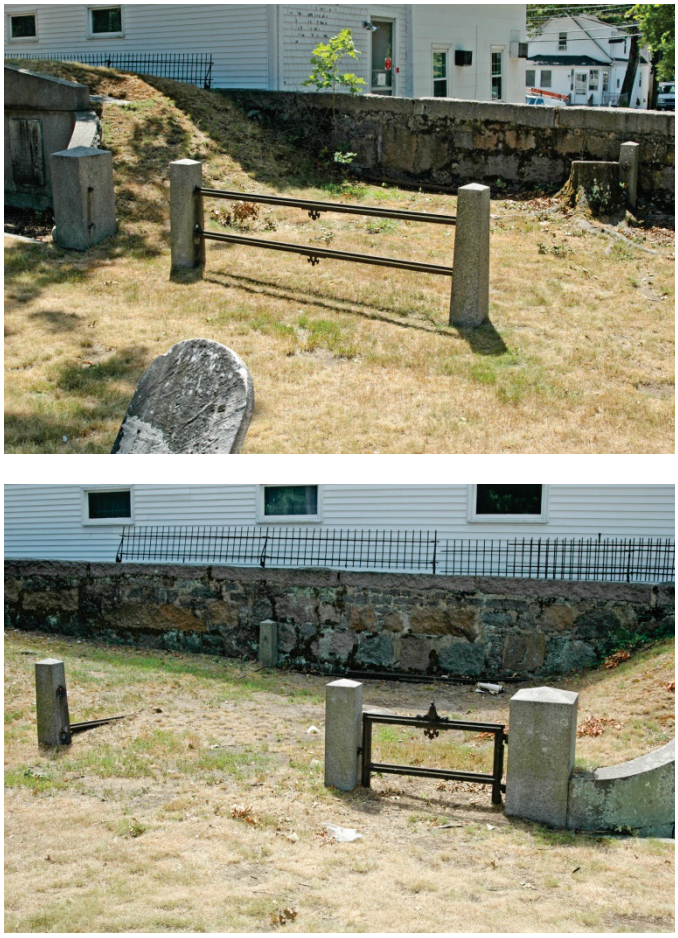

Figure 23. Vinton fence. Upper photo shows the fence on the west side of the tomb. Lower photo shows the fence on the east side of the tomb, with the gate buried in the soil and the lower side bar bent and covered in soil.

Street, dramatic changes in the scale of the fence would serve no viable purpose. The original design should be maintained.

Vinton Fence

A decorative cast iron fence set in granite posts flanks the Vinton tomb. Unfortunately, much of this fence has been damaged, so only two of the original eight bars are still in place and only one of the two gates survives. Broken fence bars are stacked in the grass. The granite posts are intact and require only cleaning and removal of failed lead. The eastern gate is partially buried in the soil; the ground here must be regraded to permit the gate to swing freely.


Figure 24. Arnold Family Plot fence.

Fence bars along the front are 18'4", while those are the sides are 14'2". The broken bars must be pieced together using shielded metal arc welding (SMAW). Welds should be continuous, using NiRod Ni-99 electrodes and the welds ground smooth. Unfortunately, while 59'2" of bar is necessary, only 44'3" are available. The maximum amount of repairs should be made, completing the front sections.

There is one bar on the bottom of the east side panel. This bar will require careful straightening and it should be placed in the top position.

All bars should be fitted using lead pointing.

Since no paint remains on any of these bars, they may be painted using Rust-Oleum Rust Reformer and top coated with alkyd paint as previously specified for the boundary fence.

Arnold Family Plot Fence

At the east side of the cemetery the Arnold plot has a three rail iron fence set in granite posts. There is no indication that the north and south edges of the plot were enclosed, but the fence and three gates ran along the west side of the plot (the east side bounded the granite perimeter wall).

The bars are ⅝" with the opening 6'1¾". The gate openings are 2'10½" in width. The granite posts are 2'6" in height, with rails at 3", 10", and 19" from the top. Of the 18 rails originally set, today only seven remain. Only one of the granite columns is broken.


Figure 25. Portion of the chain from the French plot found scattered in the cemetery.

The broken granite can be repaired using a hi-mod, moisture insensitive, structural epoxy. One iron rail requires straightening. Missing rails can be replaced with ⅝" bar stock cut to length and set using lead pointing.

Since no paint remains on any of these bars, they may be painted using Rust-Oleum Rust Reformer and top coated with alkyd paint as previously specified for the boundary fence.

Charles French Plot

This plot consists of granite posts between which were hung two lengths of chain, each 14'7" in length. The chain consists of links 1½" in length and 1" in width.

Figure 26. Lost fence documented by granite blocks and remnant iron rods.

This chain has been poorly treated and has not been appropriately maintained. It appears that some lengths have been mowed over, projecting it out into the cemetery, where several damaged lengths were observed during the assessment.

At least five new lengths of chain will be required, as well as six replacement eye bolts to be set with lead.

Since no paint remains on any of the chain, it may be painted using Rust-Oleum Rust Reformer and top coated with alkyd paint as previously specified for the boundary fence. Some replacement landscape chain is prepainted, but the existing chain will require painting.

Lost Fences

Several fences have been lost from the cemetery landscape. These are evidenced by granite blocks with protruding iron pins or fittings. The presence of the fenced plots should be documented and the iron core drilled from the blocks to prevent further iron jacking.

Perimeter Granite Wall

The 1999 assessment observed that most of the eastern cemetery wall consists of "large, semi-dressed units laid up in a broken ashlar pattern," while the south and west walls are of "rubble" construction. There is a qualitative difference in the walls; we would describe the south and west walls as consisting of coursed, roughly squared rubble, while the bulk of the east wall consists of coursed ashlar with some areas of random ashlar. However, not all of the east wall exhibits cut stone, there are some areas where rubble is found.

The wall varies in height relative to the topography, but is generally about 3'7" in height. The capstones are generally about 11'3¾" by 1'6" by 8½". The capstones are fairly consistent in size, regardless of where they are placed. The stone is likely Quincy granite, having a consistent medium gray to bluish-gray color, all with blue or blue-black spots.

We are not certain, however, that the differences are historically significant. Nor can the wall (based on construction features) be assigned to a particular historical period, as previous researchers have attempted to do.

There are two damaged areas. One, noted in 1999, is situated at the south end of the east wall. The second area, apparently more recent, is on the south end of the west wall. At both

Figure 27.Perimeter granite wall. Top left photo shows the wall on the east side of the cemetery. Top right photo shows the wall on the west side of the cemetery. Lower left photo shows the damage to the south end of the east wall. Lower right photo shows the damage to the south end of the west wall.

locations the wall has been damaged, with the loss of stones.

The walls have received at least one episode of repointing, using a hard, gray Portland cement mortar. Much of this workmanship is poor and the mortar has been smeared across the old joints, as well as on the stone. In one area possibly original mortar was found. This appears to be a light gray color and is far softer.

All of the walls require that the hard pointing mortar be removed and the joints repointed using a 1:2.5 mix of NHL 5 and sand to match the original mortar in texture and color. It was not possible to identify how the joints were originally finished; the repointed joints should be compacted with a churn brush to give them a weathered appearance.

The damaged wall sections will require that some stones be removed, cleaned, and reset (using the same 1:2.5 mix of NHL 5 and sand). It appears that the original stones are still present and no new materials will be needed.

<u>Recommendations</u>

At one or more times in the past the Town has inappropriately removed tombs from the cemetery landscape, dramatically altering the appearance of the cemetery and affecting significant original historic fabric. Such actions are detrimental to the long-term preservation of the cemetery and its historic significance. The actions are also disrespectful to those buried in the cemetery. No similar actions must be undertaken in the future.

The remnant features of these destroyed tombs, such as their iron doors, must be

identified, cleaned and conserved, and securely replaced in the cemetery as commemorative markers.

The Hon. E. Thayer Tomb requires repointing using mortar on the sides and rear, while the front requires repointing using lead. The door must be excavated, cleaned, and conserved. If steps are present, they will require evaluation and possible treatments. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems.

The S.V. Arnold tomb requires repointing and repair. The graffiti on the lintel above the door must be removed. The door must be excavated, cleaned, and conserved. If steps are present, they will require evaluation and possible treatments. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems.

The Vinton tomb requires repointing. The extant steel door replacement should be removed and a marble sheet installed to better match the original door. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems.

The Elizabeth Niles tomb requires repointing. The slate tablet break should be infilled with Jahn M160 to prevent water intrusion. The graffiti on the side of the tomb must be removed.

The Elm Street Fence has received inadequate maintenance and today requires extensive work. Minimally, the fence should be garnet grit blasted to remove corrosion and adhering paint, caulked, and repainted. Missing elements should be replaced where possible and broken or inappropriate welds should be repaired.

The perimeter fence is in even worse condition with many of the fence panels missing and much of the mounting hardware too corroded for use. Consequently, the mounting braces and central panel supports will require recasting. The fence requires painting. Downed sections should be replaced to deter hopping the wall at the southwest corner.

The Vinton Fence requires that downed bars be welded and refitted using lead pointing. The fence requires painting. One bent bar will require straightening.

The Arnold Family Plot Fence is missing many elements, but these can be readily replaced, set in lead pointing. The fence requires repainting and at least one bar requires straightening.

The Charles French Plot is the only chain fence still identifiable in the cemetery. Replacement eye bolts must be set using lead. Existing and replacement chain should be painted and rehung.

The perimeter granite wall is in fair condition, although much of the wall has been damaged by inappropriate pointing with a hard Portland cement. The walls require repointing and two damaged areas will require that displaced stones be reset.

LANDSCAPE MAINTENANCE

The Planned Landscape and Its Loss

Benjamin Vinton French retired from commercial interests in Boston in 1836, acquiring 200 acres in Braintree upon which he created what has been described as a magnificent farm. His library included all of the "standard works of the period" and he became known as a "scientific agriculturalist" (Vinton 1858:193). He was the founder of a variety of agricultural societies, including the Massachusetts Agricultural Society, the U.S. Horticultural Society, and the Massachusetts Board of Agriculture. He was also instrumental in the creation of the Massachusetts School of Agriculture (Vinton 1858:194). French even participated in the layout of Mount Auburn Cemetery.

Although he held no office in Braintree, it is reported that French made the suggestion that the Braintree burial ground had fallen into

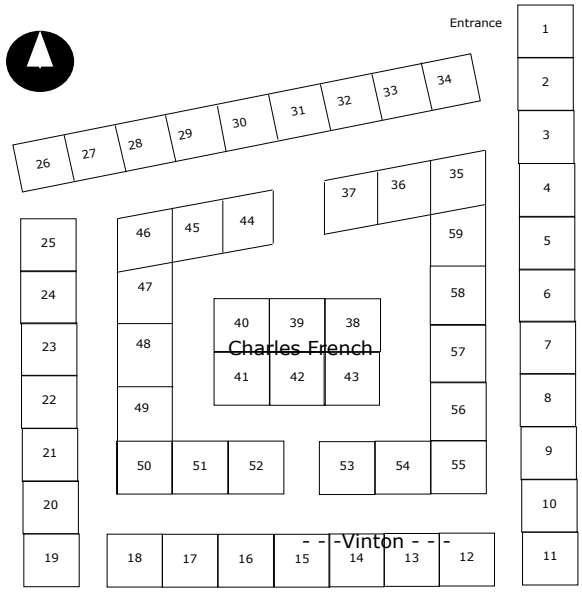

Figure 28. Plan of the southern extension of the Braintree Burying Grounds. Plots 26-34 are tombs.

"disgrace," be "extended by the addition of more land, and fitted up with its present graceful appointments. The plans of the tombs were procured by him, and the enclosing of the whole in a substantial manner was under his superintendence" (Vinton 1858:194).

It is interesting that French, who clearly had experience with the rural cemetery movement begun at Mount Auburn, as well as the integration of the Massachusetts Horticultural Society into the cemetery development, chose a somewhat more traditional plan for Braintree – far more reminiscent of the New Haven Burying Ground (established in 1796; today often called the Grove Street Cemetery). It is unlikely that the Boston area could have supported two picturesque cemeteries (Mount Auburn was initially 72-acres, much larger than any American burial ground; Sloane 1991:45).

Nevertheless, we know that Braintree's southern extension was a planned cemetery and, like New Haven, it was divided into family lots, as well as a large number of tombs that separated the addition from the original churchyard cemetery. As Sloane observes for New Haven, the Braintree extension created a landscape that revolved around the family – "families spent large amounts of money celebrating the kinship, rather than the individual achievements of those buried within the lot" (Sloane 1991:32). At the center of the new addition were six lots – all purchased by Charles French for his family. In addition, Benjamin Vinton French purchased one of the vaults.

As a result of the landscape changes at Braintree, "any person or persons may plant trees or shrubbery on the Parish grounds under direction of the superintendent of the burying grounds provided the same is done without any expense to the Parish" (Shuster 1957:116). Thus, the landscape of the cemetery, initially that of a churchyard burial ground, began to be transformed into what is often called the

Town/City Burial Ground plan. There horticultural plans combined elements of "eighteenth century English gardens, American domestic graveyards, and the flowering orchards of the surrounding countryside" (Sloane 1991:32). The planned layout and ornamental plantings would have set apart the northern and southern portions of the Braintree cemetery and the division would have been made clear by the row of mounded tombs and entrance on the east side of the layout.

The only list of plants thus far identified is provided by the 1999 assessment. These plants are identified as rosebay rhododendron (*Rhododendron maximum*), black chokeberry (*Aronia melanocarpa*), periwinkle (*Vinca* spp.), rose (*Rosa* spp.), snowberry (*Symphoricarpos albus*), spiraea (*Spiraea* spp.), and yucca (*Yucca filamentosa)*.

Deciduous trees in the cemetery in 1991 included American horsechestnut (*Aesculus hippocastanum*), littleleaf linden (*Tilia cordata*), Norway maple (*Acer platanoides*), sugar maple (*Acer saccharum*), black oak (*Quercus velutina)*, black cherry (*Prunus serotina*), English hawthorn (*Crataegus laevgata*), and Japanese maple (*Acer palmatum*). Evergreen trees include white cedar (*Thuja occidentalis*) and Colorado blue spruce (*Picea pungens*).

Considering the years of neglect, it is likely that by the early 1990s many of the original plantings had succumbed. It is also likely that some of the plantings, such as the Japanese maple, were rather recent introductions into the cemetery landscape (based on their size). Although some reduction in landscape plantings is recognizable on historic aerial photographs for the 1940s and 1950s, it is clear that the greatest loss occurred during the late 1990s.

The 1999 assessment does confirm that by that time many of the trees were in fair to poor condition; however, only 11 of the 31 trees were recommended for removal by an ISA certified arborist. The remaining trees, plus new plantings, were designed to ensure that the historic landscape was maintained.

These professional recommendations

Figure 29. Aerial photographs of the cemetery in the mid-twentieth century. On the left is an April 1947 photograph. On the right is a photograph from May 1954.

were based upon an understanding of the historic landscape and adherence to the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes (http://www.nps.gov/history/hps/hli/landscape_guidelines/index.htm). They represented the best professional practice to ensure the significance of the vegetative landscape, structures, and associated features are maintained.

Unfortunately, the Town chose to ignore these recommendations, removing eight tombs, dramatically altering the structure of the site, as well as its topography. The Town also chose to remove not 11 of the 31 trees, but 19 – leaving only 11 examples of the larger vegetation (4 black oaks, 2 Japanese maples, 1 English hawthorn, 1 littleleaf linden, 2 white cedar, 1 Colorado blue spruce, and the 1 rosebay rhododendron.

Virtually all of the shrubs have disappeared – only a few yucca remain, as well as one abused barberry (*Berberis vulgaris*).

When asked why these dramatic and destructive changes were made, the individual responsible replied that he had a "vision." We fear that much of this "vision" was predicated on ease of maintenance, rather than any long-term professional landscape plan – making the loss all the more egregious.

However well intentioned, the "vision" forced upon this historic cemetery has completely destroyed the distinction between the north and south sections, has destroyed the historic landscape, and has dramatically affected the National Register eligibility of the site.

The destruction of the landscape demonstrates what can happen when those with inadequate training and expertise are allowed to make alterations. The Town is now faced with a critical need to mitigate the damage and restore the property to its historic roots. This is an essential undertaking in order to maintain the National Register eligibility of the site. In a following section we will make recommendations on the introduction of new plantings in an effort to mitigate the damage and repair the cultural landscape.

Staffing

We have reviewed in some detail how funding (and staffing) for Braintree's four public cemeteries of just over 9 acres has been dramatically cut with the 2008 town reorganization. The budget in 2008 was $72,772. By 2009 it had been slightly to $81,238, although the 2010 budget was slashed to a mere $70,954.

While there was once a Cemetery Division within the Department of Public Works, today cemetery maintenance is subsumed under the Highways and Grounds Division. Care is provided to the cemeteries by two individuals. These same two individuals are also responsible for the care of other town properties, including parks and ball fields. They have candidly admitted that the cemeteries are a low priority and receive only the most minimal attention. On average they may spend one-day a week attending to needs in the cemeteries (representing 20% of their time). Most of that time is spent at the still active Plain Street Cemetery. By their own estimates "less than 5%" of their time is spent at the Elm Street Cemetery – or about 2 hours per week.

Many municipalities place cemeteries under the control of some sort of park and recreation department. This is almost always a mistake. Association with a highway and grounds organization is no better and may be quantitatively worse.

Cemeteries are scenic landscapes and in that sense similar to parks or open spaces. But they are far more; they are sacred sites, permanent collections of three-dimensional artifacts, and archives. The care they require is very different from the ordinary community park or recreation center. They demand different expertise and attention to the preservation of their historic integrity and historic landscape. There is far more to the maintenance of a cemetery than simply cutting the grass. This is clearly revealed in the tragic errors that have damaged the landscape and topography of the Elm Street Cemetery.

By associating cemetery duties with roadways, the Town has further relegated the care and preservation of these burial grounds to a tertiary role – an activity of limited consequence, oversight, funding, or support.

We typically recommend two workers and one supervisor per 10 acres. This is based on the Boston Historic Burying Grounds Initiative (Atwood et al. 1989) and is particularly suitable for Braintree's situation since it is estimated that mowing old cemeteries with 3-dimensional monuments requires six-times the labor than modern lawn park cemeteries (Klupar 1962:239; Llewellyn 1998:100).

Thus, for the approximately 9 acres of Braintree cemeteries, we recommend a full-time, dedicated staff of three trained individuals.

The current staffing level is impossibly low and affects the ability of the town to have an adequate presence in any of the cemeteries, perform the necessary maintenance, and help ensure the long-term viability of the properties. The higher level of staffing would also help minimize vandalism and inappropriate activities in the cemetery.

Perhaps an appropriate level of staffing would also have reduced the pressure to make inappropriately destructive landscape alterations at the Elm Street Cemetery and aided in the maintenance of the property's cultural landscape.

Appropriate maintenance established by good practice includes weed control, tree trimming, pruning, seasonal cleanup, maintaining the roads, conducting section inspections, survey of monuments for maintenance needs, maintenance of shrub beds, maintaining section signs, maintaining water lines, rehabilitation of barren areas, raking, resetting stones as needed, inspecting and repairing fences, watering newly planted areas, sodding as necessary, identification of trees for removal, removal of flowers and grave decorations, removal of wild growth, and inspection and cleaning of catch basins (see, for example, Klupar 1962:226-228). The importance of maintenance was clearly stated by West, "one thing is certain, the cemetery must be maintained in a proper manner or public confidence will suffer" (West 1917:26).

This larger, permanent, and dedicated crew would also allow the town to train certain employees in the appropriate way to reset monuments, as well as make simple repairs. It would be possible to undertake, for example, an appropriate level of fence maintenance at the Elm Street Cemetery. It is important that these employees be assigned exclusively to the cemetery, allowing them to develop a sense of ownership and continuity.

In addition to these maintenance efforts, efficient cemetery operation also depends on management activities that Llewellyn describes as ranging from "land use (master planning), road maintenance, utility operation (backbone utilities like water), budget balancing (sales to cover expenses), long-term financial concerns, community relations, enforcement of rules and regulations, and so on" (Llewellyn 1998:206). In fact, he spends an entire chapter on administrative responsibilities of the cemetery manager.

Consequently, the town must provide a staffing level that will maintain the beauty, dignity, and historical significance of this cemetery. Braintree is not doing this at present and the care of the Elm Street Cemetery (and we suspect the others) is suffering as a result.

Staff Training

Sadly, professional training in the landscape industry, at least among the public, is undervalued. This contributes to rapid turn-over and inappropriate maintenance activities.

In 2005 the Associated Landscape Contractors of America (ALCA) and the Professional Lawn Care Association of America (PLCAA) merged to form the Professional Landcare Network (PLANET). This organization offers three certification programs.

The first is the Certified Landscape Technician – Exterior. The exam for this certification is a hands-on field test and

candidates can be tested in Installation, Maintenance, or Irrigation.

The second is Certified Turfgrass Professional – a comprehensive study of both warm and cool-season turfgrasses developed by the University of Georgia Center for Continuing Education. Certification in this area demonstrates a mastery of weed, insect and disease identification/control, as well as diagnosis of common turfgrass problems. The material supports Integrated Pest Management concepts and pesticide safety – significantly reducing the City's liability for operations.

The third is Certified Ornamental Landscape Professional. This certification emphasizes tree and shrub maintenance procedures with candidates concentrating on landscape trees and ornamental woody plant physiology, health care management, and establishment.

There are also local programs. For example, the Massachusetts Horticultural Society is the home of the state's Master Gardener Program (http://www.masshort.org/Master-Gardener-Program). The Massachusetts Nursery and Landscape Association provides certification training for professional horticulturalists (http://progrownews.com/Certification.html).The Massachusetts Association of Landscape Professionals also offers a certification program and continuing education classes (http://mlp-mclp.org/sections/MCLP_certification.php).

Unfortunately, no one associated with the town's cemeteries is a member of these organizations or has received certification training.

We imagine that much of the focus has been (and continues to be) on the turfgrass at athletic facilities or public parks. Braintree's Department of Public Works should not assume that the problems of grass maintenance are the same, regardless of where the turf is situated.

An excellent publication on cemetery lawns notes that, "there are peculiar problems which confront only the person responsible for the development and care of cemetery lawns." These include the age of cemetery grounds and the fact that rarely were cemetery choices made on the basis of appropriate soils (Anonymous 1932:4).

The town must provide opportunities for its staff to become certified in different areas – and must emphasize the importance of this certification. Such efforts would improve the level of care and maintenance and develop a greater sense of stewardship. Eventually this core of trained individuals could also provide in-house training to other staff.

Given the importance of trees to the vistas and historic landscape, as well as the demonstrated damage that has already occurred to the property's historic vegetation, it is critical that at least one individual with oversight of the town's burial grounds be an International Society of Arboriculture (ISA) Certified Arborist.

Certified arborists have a minimum of three years experience in some aspect of tree care and have passed an exam developed by an international panel of experts. The exam extensively covers every aspect of tree care and the individuals must have an acceptable level of knowledge in all areas of arboriculture.

One individual associated with the cemetery is a member of the Massachusetts Tree Wardens & Foresters Association. This organization does provide training to its members, but it does not offer a certification program. Membership is open to all tree wardens (as defined by local ordinance), arborists and industry related personnel, regardless of training.

The Quality of Supervision

Regardless of the credentials or certification, the complexities of the cemetery landscape require that the technicians are well supervised and are held accountable for their performance. It is especially important, therefore, that the supervisory position we recommend be carefully defined. The selected individuals must not only be well trained and knowledgeable, but also possess demonstrated supervisory

experience. The supervisor must be expected to work alongside the crews on a daily basis – this means that the town must not burden this individual with administrative duties.

Continuity of the Staff

Maintaining the continuity of a maintenance staff with a commitment to the preservation of a historic cemetery is critical. It not only serves to help ensure the highest possible quality of care, but also allows the specialized knowledge that accrues to be transferred to new staff members over time.

Obtaining this continuity, of course, demands that the town provide a reasonable pay scale for new workers and ensure that staff does not feel trapped in a dead-end job.

Turfgrass Issues

Turfgrass should be an important concern of cemeteries, although rarely is it given adequate attention. With an appropriate turfgrass, mowing frequency is reduced. This reduces labor costs, pollution, equipment expenditures, and perhaps most importantly for historic properties, damage to the stones.

Figure 30. Examples of mower and trimmer damage. Top photo shows mower impacts on the sides of a slate stone. The bottom photo shows parallel scars from too heavy nylon trimmer line.

The Elm Street Cemetery lacks a well-defined turf grass, although many areas were predominately a fine fescue. According to the town no effort has been expended to develop a turfgrass and the grass has received little attention beyond mowing. This has lead to an overall decline in appearance and an increase in maintenance costs. It is no surprise, therefore, that much of the cemetery contains broad leaf "weeds" – undesirable species that cause the grounds to look unkempt and require frequent mowing to keep them in check.

Mowing

Mowing at the cemetery is conducted using a John Deere Z Trak F620 Mower with a 48" mower deck. At times a commercial walk behind mower is also used. Although the deck size of the F620 is the smallest offered, the use of such equipment in a historic cemetery can be problematical since large equipment is more difficult to control and ensure that no damage occurs to stones or landscape plants.

We recommend that the use of riding mowers be abandoned at the Elm Street Cemetery and only walk behind mowers with decks no larger than 21-inches be used. Even with the smaller sized mowers, all equipment used in the cemetery should have a closed cell foam

pad attached to the sides and front edges. This bumper will help to minimize accidental damage.

Stones in the cemetery clearly reveal the damage that can be done by large equipment and less than perfect handling (see Figure 30).

It is reported that mowing is conducted "every three weeks" and the cemetery was mowed immediately prior to this assessment. Reports from other stakeholders interviewed during this assessment suggests that this mowing frequency is not adequate. We received reports that the grass was often 6" or higher – suggesting that mowing every two weeks would be more appropriate.

In general, most cool season turfgrasses should be mowed to a height of 2½ to 3½ inches and frequently enough so that no more than 1/3 of the total leaf surface is removed in one mowing. If the grass is allowed to become too high, the removal of grass adjacent to monuments would become more difficult with longer and thicker grass blades – and this in turn could lead to more damage to the stones. In addition, the removal of more than 1/3 of the blade causes undue stress on the turf.

Figure 31. Grass at the Elm Street Cemetery has been cut with very dull mower blades, resulting in the leaves being torn, rather than cleanly cut.

It is also critical that mower blades be frequently sharpened. Dull mowers tear the grass blades rather than cut them (Figure 31). This can result in excessive injury to the plants as well as a brownish cast to the turf. In addition, mower blade injury can cause several adverse effects, including increased turfgrass water use and the promotion of disease infection.

In addition to mowing, nylon trimmers are used around monuments, coping, fencing, and plantings. This is an acceptable practice, but it is critical that a very light weight line be used – along with worker attention – to minimize damage to soft stone such as marble. The maximum line diameter for use in the cemetery should be 0.065". Thicker lines will cause unnecessary damage to the stones.

Unfortunately the town is using trimmer line that is 0.095" and Figure 30 reveals damage done to markers by the use of this line.

A final issue of concern is that the Roads and Grounds staff are not picking up trash in the cemetery prior to mowing. Instead, the trash is being mowed over. We observed plastic, aluminum, and other items (including remnant plot chains) that had been mowed over. The cemetery, at the time of the assessment, also exhibited multiple areas where leaves and other trash had been allowed to collect – all of this debris must also be removed prior to mowing.

In other areas we observed that the mowing had severely damaged plantings. For example, Figure 32 illustrates yuccas that were simply mowed over, rather than being mowed around. This indicates a disregard for the historic landscape and is inexcusable. Sufficient care must be taken to ensure that all plantings are adequately protected from mowing or other maintenance activities.

The overall feel is that maintenance is being done too quickly, without adequate care. This may be the result of insufficient training or it may be the result of the staff being too pressed for time to allow a proper job. In either case, the landscape of the cemetery is suffering and the level of care reflects poorly on the town of Braintree and its staff.

Figure 32. Unacceptable mowing practices include a failure to collect trash, litter, and branches prior to mowing and mowing over plantings.

Fertilization

The town reports that soil tests are not made for the improvement of the turfgrass. In addition, no pre-emergent or post emergent weed control is used.

Soil testing by the Soil and Plant Tissue Testing Laboratory at the University of Massachusetts Amherst costs only $9 per sample (pH, buffer pH, extractable nutrients, extractable heavy metals such as lead, cation exchange capacity, and percent base saturation) and the practice of testing the soil every two to three years is a critical step in establishing a healthy turf (http://www.umass.edu/soiltest/pdf/soil_test_brochure_2009.pdf).

During this assessment one sample was collected, combining soil from the four quadrants of the burial ground. As might be predicted with no turfgrass maintenance program, the soils exhibit very low levels of nutrients (Table 3).

Based on these results, an appropriate regimen for turfgrass is the application of 50 lbs. of dolomitic limestone/1000 square feet in the early spring and again in mid-autumn. The soil should be retested next year to evaluate the soil pH adjustment.

The soil also requires 2 lbs. of P_2O_5, 4 lbs. of K_2O per 1000 square feet, and 1 lb of nitrogen per 1000 square feet.

Table 3.
Soil test for turfgrass at the Elm Street Cemetery

Soil pH: 4.6	Organic Matter: 6.8% (4-10% desirable)	
Buffer pH: 5.8	Total Estimated Lead: 255ppm (low)	
	Micronutrient levels: normal	
Phosphorus (P)	5 ppm	Low
Potassium (K)	38 ppm	Low
Calcium (Ca)	40 ppm	Very Low
Magnesium (Mg)	11 ppm	Very Low

Using conventional 20-3-12 fertilizer the report recommends 5 lbs per 1000 square feet in late April, late June, and very late August. In addition, a 0-20-0 (superphosphate) should be applied in very late August at the rate of 5 lbs. per 1000 square feet. The 20-3-12 will require application for at least two successive years; the superphosphate should be applied only the first year.

In order to minimize salt uptake by the stones, slow release organic fertilizers are preferable to commercial inorganic fertilizers. An excellent source explaining the differences between organic and inorganic fertilizers is http://www.cmg.colostate.edu/gardennotes/234.pdf. The publication at http://pubs.caes.uga.edu/caespubs/pubs/PDF/C853.pdf provides information on converting traditional inorganic fertilizer recommendations to safer organic recipes.

For example, 1.8 lbs of steamed-bone meal per 1000 square feet will provide the recommended P2O5 levels. Sulfate of Potash Magnesia will meet the K_2O demand at a rate of 2.8 lbs. per 1000 square feet. The recommended nitrogen levels can be supplied by the addition of 0.5 lb of blood meal per 1000 square feet.

Obviously, the timing of fertilization is critical, especially for stressed turf which does not have supplemental irrigation. Thus, it is important that no fertilizer be applied during the summer months when cool-season turfgrasses are naturally stressed and easily out-competed by many weed species. Dormant or brown turf should also not be fertilized.

Weed Control

The assessment found a variety of weeds invading the turfgrass. While directly attacking these weeds using pre- and post-emergent herbicides may be necessary, other cultural practices should be instituted first. The most important is aeration. During this assessment we found that the cemetery soils were heavily compacted.

Compaction causes a variety of problems, including reducing drainage and inhibiting air exchange, decreasing soil oxygen, altering infiltration and percolation rates, and contributing to the build-up of thatch since the conditions for microbial activity and decomposition are adversely affected.

We recommend hollow tine core aeration with treatments at least twice a year, typically in May and September. Given the compaction level it may be necessary to core aerate the Elm Street Cemetery for several years before establishing a yearly schedule.

Klupar (1962:223) states that weed eradication "is an operation considered essential in a well-kept cemetery." Thus, while the cemetery clearly reveals the need for extensive post-emergent (and possibly pre-emergent) herbicide use in order to rehabilitate the turfgrass, it is critical that the pesticides be carefully applied and that overuse should be carefully avoided. Use should also ensure that drift does not occur and that the herbicide is not applied directly to the stone.

We recommend that the weed issue be revisited after core aeration and after appropriate fertilization for several years.

Pest Control Practices

Low maintenance turf care accepts some degree of pest damage. However, the town should be alert to significant pest problems. One Purdue lawn pest publication that may help is available at http://extension.entm.purdue.edu/publications/E-61.pdf.

Figure 33. Lawn problems. The top photograph shows heavy soil compaction. The bottom photograph shows moss invading the turfgrass.

We also observed areas of dense moss growth. The presence of moss is often an indicator of compaction, improper soil pH, or too much shade. Since shade does not seem to be a major problem where the moss is densest, we suspect that compaction combined with poor soil fertility are the primary problems.

Renovation

There are areas in the cemetery where the turf has been heavily invaded by weeds. After fertilization and core aeration for several years, it may be appropriate for the town to implement a renovation program in these areas in order to establish a good stand of turf.

Section 5, "Establishment, Renovation, and Repair" in the publication, *Lawn and Landscape Turf Best Management Practices* (available at http://www.umassturf.org/publications/online_pubs/lawn_landscape_bmp.pdf) provides good guidance.

Irrigation

Although the assessment questionnaire reported that the Elm Street Cemetery did not have hose bibs, one was identified during the assessment, although it was inoperable. Our sense is that the meter controlling this bib was turned off when the Braintree Water and Sewer Department began charging other town departments for their water usage.

The inability to provide any spot watering is causing stress on vegetation. We strongly recommend that the meter be turned on to allow spot watering. The town could easily install a Woodford (or equivalent) sanitary hydrant that would provide back flow prevention, frost proofing to a depth of 2-3 feet, and allow the faucet to be locked to prevent misuse. If backflow prevention is not required, the Woodford Yard Hydrants can prevent frost damage to a depth of 5 feet.

Having the ability to spot water will be critical when some turf areas are renovated, as well as for other preservation activities (such as the repair of stones and cleaning heavy lichen deposits).

Cemetery Trees

We have previously explained that the only list of possible original plantings is provided by the 1999 assessment and that since that time the town removed a great many of the cemetery trees, leaving a stark landscape that is not historically accurate and detracts from the cemetery's beauty. Therefore one of the most

Table 4.
Trees Associated with the Elm Street Cemetery

Tree	# in 1999	# today	Origin	Cultivation			Size (HxS)	Litter	Breakage	Roots	Notes
				Zone	Light	Drought					
American horsechestnut (*Aesculus hippocastanum*)	2	0	Exotic: 1576	4-7	FS	M	50-80x40-50	Significant	Resistant	No Problem	Used for bordering.
Littleleaf Linden (*Tilia cordata*)	1	1	Exotic:	4-7A	PS-PS	M	40-50x25-40	None	Resistant	No Problem	Particularly susceptible to Japanese Beetles.
Norway maple (*Acer platanoides*)	12	0	Exotic: 1792	4-7A	PS-PS	M	40-60x35-40	None	Resistant	Problem	Requires pruning; seeds sprout readily. Used as a speciment tree.
sugar maple (*Acer saccharum*)	1	0	Native: 1735	3-8A	S-PS	M	50-80x35-80	None	Resistant	No Problem	Excellent colors through all seasons; frequently used for ornamental plantings.
black oak (*Quercus velutina*)	4	4	Native: 1800	3-9	PS-PS	M	50-60x variable				
black cherry (*Prunus serotina*)	1	1	Native: 1629	3B-9A	PS-PS	H	60-90x35-50	Significant	Resistant	No Problem	Can seed itself into landscape.
English hawthorn (*Crataegus laevgata*)	1	1	Exotic: 1786	4B-8	FS	H	20-25x15-25	None	Resistant	No Problem	Casts heavy shade if lower branches left in place; must be pruned for turf areas. Highly recommended by Downing.
Japanese maple (*Acer palmatum*)	2	2	Exotic: 1830	5B-8	PS-PS	M	15-25x15-25	None	Resistant	No Problem	Winter interest, but may be damaged by Spring frosts.
white cedar (*Thuja occidentalis*)	2	2	Native: 1536	2-7	PS-PS	M	25-40x10-12	None	Resistant	No Problem	Good screen or hedge plant; not commonly used as a specimen plant.
Colorado blue spruce (*Picea pungens*)	4	1	Native: 1862	4-7	PS-PS	M	30-50x10-20	None	Resistant	No Problem	Rarely used prior to 1880s.

significant tasks will be the replanting of the cemetery landscape. Table 3 provides some information on the trees present in the cemetery.

Selection Issues

Cemeteries, in general, have historically been dominated by large deciduous trees, although evergreens are also very common. They provide a distinctly inviting image for visitors and passersby. These trees also provide some visual separation from adjacent buildings – especially in cluttered urban environments.

Ideally the trees selected should be historically appropriate. In the case of a planned cemetery, such as the Elm Street Cemetery, the ideal would be to use those trees selected by the original designers – respecting their original intent and interpretation. Thus, Table 4 provides an excellent beginning point (excepting perhaps the Colorado Blue Spruce, which is a fairly late introduction).

All other issues being equal – plantings should focus on those tree species that are known to have been used. While diversification may be acceptable, it should not dilute the original design or intent. Therefore, we urge care in selecting additional plantings, focusing on a small number of historically appropriate trees to maintain the historical integrity of the cemetery.

Some trees, whether historically appropriate or not, should probably be avoided since they pose significant maintenance issues. These include trees that produce dense shade (causing problems with the turfgrass); trees that exhibit suckers or surface roots (also causing turfgrass problems); trees that drop large quantities of leaves, seeds, or sap; and trees that are especially weak or vulnerable to wind or ice damage.

Obviously, there is no such thing as a perfect tree. Many of the historically appropriate species have significant problems. At least some of these problems, however, can be overcome through judicious placement and appropriate planning.

Given the excessive removal of historic vegetation from the Elm Street Cemetery, we strongly recommend that an ISA Certified Arborist be retained to assess the health and condition of the existing trees and develop a long-term tree plan. Table 5 provides a list of several ISA Certified Arborists in the vicinity of Braintree

Trees should be replanted as older ones are removed and a general effort should be made to plan for future tree replacement, perhaps using a mix of fast-growing but short-lived trees intermixed with slow-growing but long-lived trees to create a planned appearance. It is also

Table 5.
ISA Certified Arborists in the Braintree Area

Name	Company	Location	Phone
Caswell, Todd	Natural Tree & Lawn Care	Avon, MA	781-297-3674
DiBlasi, Joseph	Tree Surgeon	Weymouth, MA	781-706-4767
Martin, James	Consulting Arborist	Chelmsford, MA	781-572-7924

appropriate to plant replacement trees in anticipation of their need, allowing them an opportunity to become established before the diseased or damaged tree is removed.

The 1999 assessment recommended that additional plantings take place on the east and west lines of the cemetery in order to screen the cemetery from the adjacent, and intrusive, properties. This is still a very valid recommendation. These adjacent properties do not enhance the cemetery experience and, in many cases detract from the solitude and beauty of the property. Evergreens would be particularly effective at shielding these views.

The southern half of the cemetery also requires replanting in order to begin restoring the original appearance of the property. Decorative or specimen trees would be appropriate for this area.

Planting Issues

Locations chosen for planting should not interfere with gravestones, curbing, or fences. Issues of security should also be considered and the use of small trees that obscure eye level views should generally be limited or avoided.

Research is suggesting that trees, especially older mature trees, improve in health when turfgrass is removed under the branch spread and mulch is applied at a depth not exceeding 3 to 4". This is a practice that could be productively employed at the Elm Street Cemetery. Staff should be closely supervised to prevent over mulching of vegetation.

All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004).

Maintenance Issues

Maintenance involves at least four basic issues: watering, fertilization, pruning, and pest control.

The town does not, on a routine basis, water trees in the cemetery, relying instead on rainfall.

We are told that past experience with water bags has been poor, with the bags being vandalized. This vandalism, however, appears limited to far more public locations and may not be applicable to the cemetery. Watering is a critical element to ensure that newly planted trees survive and we recommend that the use of water bags be attempted.

The staff reports that no tree fertilization is conducted, although no reason is offered. The trees in the cemetery are vital components of the landscape. They represent part of the historic fabric and steps must be taken to protect that aspect of the landscape and vista.

While shoot growth (growth occurring in the present year) and foliage color are often used as indicators of nutrient deficiency, the best indicator of whether fertilization is necessary is a soil test.

Soil testing has been conducted as part of this assessment (see Table 2). While we recommend that a certified arborist review these recommendations for deciduous plantings, in general soil pH is low and should be modified by the addition of 12 cups of ground limestone per cubic yard for new plantings. The established trees should be top dressed with the addition of 7 cups of ground limestone per 100 square feet.

Existing deciduous plantings could also benefit from the addition of 3 cups of a 5-10-5 fertilizer per 100 square feet, applied as a top dressing. New plantings would benefit from 5 cups of 5-10-5 fertilizer per cubic yard of backfill. This could be further supplemented by the addition of compost or composted manure.

Figure 34. English hawthorn that requires pruning to remove dead wood.

Evergreen plantings require less modification. Recommended is the addition of 10 cups of ground limestone per cubic yard for new plantings to achieve adequate pH adjustment. The established evergreen trees should be top dressed with the addition of 3 cups of ground limestone per 100 square feet.

Existing evergreen plantings would benefit from the addition of 1½ cups of a 10-10-10 fertilizer per 100 square feet, applied as a top dressing. New plantings would benefit from 4 cups of 10-6-4 fertilizer per cubic yard of backfill. This could be further supplemented by the addition of compost or composted manure.

It is best to fertilize trees when they are actively growing and have available water to help absorb nutrients. In Massachusetts this is typically from the spring, after new leaves emerge, through mid-season. Fertilizer should not be applied late in the season or during periods of drought.

During the assessment our observations suggest that the remnant trees are generally healthy, although several require pruning to remove deadwood (especially the English hawthorn). Several additional trees could benefit from pruning to either thin or clean. Thinning is a technique of pruning that removes selected branches to increase light and air movement through the crown. This also decreases weight on heavy branches. The natural shape of the tree is retained and its overall health is improved. In cleaning, the pruning removes branches that are dead, dying, diseased, crowded, broken, or otherwise defective. This includes narrow crotches.

Figure 35. Voluntary trees that are detracting from the cemetery landscape and that may cause eventual damage to the cemetery wall. These trees and weedy plants should be removed.

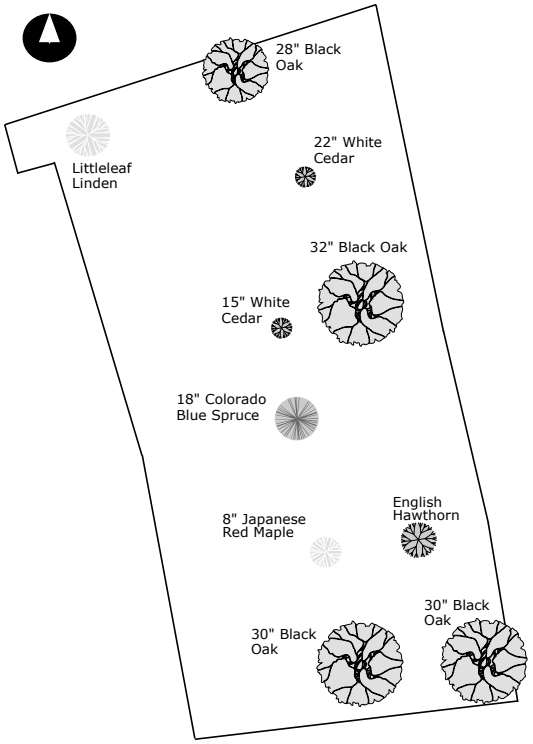

Figure 36. Extant trees in the cemetery.

Trees should be pruned in such a manner as to preserve the natural character of the plant and in accordance with ANSI A300 (Part 1) - 2001 standards.

In pruning, branches should always be cut just beyond the branch collar (an extension of the main stem) and not flush with the trunk. Large branches should be removed with three cuts to prevent tearing of the bark which can weaken the branch and lead to disease. All pruning within the cemetery should be performed by an ISA Certified Arborist.

Trees should be inspected for potential threats to monuments, as well as general health. Ideally these inspections should be made yearly and after any storm where the winds exceed 55 mph. They should be pruned to remove potentially hazardous dead wood on a yearly basis, but safe pruning every 5 years by a certified arborist is acceptable. Under no circumstances are tree climbers (hooks, spikes, gaffs) to be worn while ascending, descending, or working in trees to be pruned.

There are some situations in the cemetery where voluntary plantings have grown to interfere with the stone fence. These detract from the landscape and will ultimately pose problems for the maintenance of the fence. Those voluntary or weedy species on the cemetery should be removed.

There are also voluntary species outside the cemetery wall that lean over the wall and will pose problems. The town should contact the adjacent property owners and arrive at a plan for the removal or pruning of this vegetation in order to protect the burial ground from future damage.

Pest Control

During this visit we observed no obvious evidence of pests but Massachusetts is at risk for a great many problems, including the Emerald Ash Borer, Asian Longhorn Beetle, Sudden Oak Death, and Gypsy Moth. Given the importance of the trees to the cemetery landscape, it is of critical importance that the cemetery trees be very carefully inspected on at least an annual basis.

Shrubbery

Shrubbery would have been used extensively by families burying loved ones in the new section of the Elm Street Cemetery. By 1999, however, only six shrubs were identifiable, including Rosebay rhododendron (*Rhododendrum maximum*), rose (*Rosa* spp.), snowberry (*Symphoricarpos albus*), spiraea (*Spiraea* sp.), yucca (*Yucca filamentosa*), and black chokeberry (*Aronia melanocarpa*). Mentioned as a ground cover was periwinkle (*Vinca minor*).

Just as the town removed many trees, it appears that the shrubs have also been removed, further altering the historic landscape and dramatically changing the appearance of the cemetery. In some respects the loss of shrubbery is to be even more regretted since the individual shrubs were likely the historic remnants of original lot owner plantings.

Figure 37. Shrubs at the Elm Street Cemetery. Upper left is the Rosebay Rhododendron, an excellent specimen that should be carefully tended. Upper right is an example of the yucca present in the cemetery. Many of these are being mowed over – a practice that should be halted immediately. Lower row shows the barberry that is being improperly "pruned" using a nylon trimmer.

The plantings at a cemetery cannot be easily replaced and, in fact, represent artifacts just like the stones themselves. It is essential that the town re-evaluate the level of maintenance being provided to the cemetery.

Today the only shrubs still recognizable in the cemetery include the Rosebay rhododendron, situated in the middle of the northern portion of the cemetery, a very small and poorly attended barberry (*Berberis* sp.), and numerous yucca plants (many of which are being routinely mowed over). Also present is a bed of day lilies (*Hemerocallis* spp.) in the southwest corner of the cemetery. They, too, are inexplicably being mowed over.

Selection and Planting

As with trees, when shrubs require replacement, they should generally be replaced with like material, especially if they represent plants traditionally used in cemetery settings. If planting lists cannot be located for the cemetery, plants such as boxwood, forsythia, hydrangea, lilac, and memorial rose are all known to be period appropriate.

Fertilization

As with trees, the best indication of the need for fertilization is a soil test, which should be performed at least every three to five years. While some shrubs, such as boxwood, provide an indication of deficiency through the yellowing of lower leaves, such evidence can be missed and does not indicate the extent of the problem.

Where fertilization is necessary most shrubs, because of their shallow root systems, respond adequately to broadcasting the appropriate organic fertilizer around the base of the plant, typically at the drip line.

Most shrubs should be fertilized when they are actively growing and have available water to help absorb nutrients. Broad-leaved evergreens, such as boxwood, are best fertilized in the winter or spring. Summer or fall fertilization of these plants may induce late season growth that is highly susceptible to winter injury. Some plants which exhibit episodic growth, such as forsythia, may benefit from a more continual fertilization program based on soil analysis and plant growth response. The rhododendron will benefit from a fertilizer designed for "acid-loving" plants (more correctly, rhododendrons are acid-tolerant) and a pH of 5.5 to 6.5 is typically appropriate.

Figure 38. Stone at the edge of the rosebay rhododendron. Very judicious and careful pruning can help make the stone more visible without damaging this exceptional specimen.

Pruning

It is again in the category of pruning maintenance that we see problems. A good example of this problem can be seen in Figure 37, where a barberry has been "pruned" using a nylon trimmer. This practice is even worse than shearing since it leaves the stems broken, crushed, and damaged, promoting disease and creating a rounded shape that is inappropriate for the shrub. In addition, deadwood that should be pruned out has been left intact.

The continuous shearing of the shrubs has caused a thick outer shell of foliage which creates dense shade on the interior branches. This continuous shade will result in significant foliage drop, decreasing the health, value, and aesthetics of the plants.

Shrubs are best pruned, rather than sheared, to maintain a natural shape and to keep plants at a desired size so that they do not outgrow their landscape too quickly. With much deadwood on their interiors, significant rehabilitation may be necessary – as in the case of the barberry.

Thinning (cutting selected branches back to a side branch or main trunk) is usually preferred over heading back. Thinning encourages new growth within the interior portions of a shrub, reduces the size, and provides a fuller, more attractive plant.

The rhododendron has partially overgrown one stone (we carefully examined the interior of the plant and there are no other stones). The plant may be pruned back moderately in this location in order to make the stone more legible. It is essential, however, that the pruning not become heavy-handed or damage this magnificent specimen.

Other Landscape Issues

Noxious Weeds

Poison ivy was found in numerous areas of the cemetery, including the southern and western walls, as well as around plots and stones.

Figure 39. Poison ivy is beginning to become established in the cemetery and should be manually removed.

While not yet a significant problem, its presence in the cemetery is attributable to inadequate maintenance attention. It is found in areas where nylon trimmers cannot conveniently be used, indicating that the staff is not using clippers to remove the vine when observed.

Stone such as marble and granite can be damaged by the application of herbicides such as glyphosate, 2,4-D amine, and triclopyr typically used to treat poison ivy. Instead of spraying, we recommend that indidivual vines be cut and the freshly exposed stem be painted with herbicide to assist in the killing of the root system. A good herbicide is Dow's Garlon 4 (http://www.cdms.net/ldat/ld0B0013.pdf) which is 61.6% triclopyr (http://npic.orst.edu/factsheets/triclogen.pdf).

Collection of Leaves and Debris

We have previously mentioned that leaves and debris are not being collected prior to mowing. It is important to again emphasize that these materials must be removed from the cemetery and not allowed to collect. There are several options.

Many cemeteries deal with leaves by using power equipment to create rows that are then either mechanically bagged or, just as often, mulched using mowers with micro mulch blades. The latter approach not only eliminates the work of gathering and removing leaves, but it also adds nutrients back into the soil.

For example, a Lexington, Kentucky cemetery deals with 130 acres of leaves with a crew of seven employees using blowers to blow all the leaves to the driveways. Next, a crew of three picks up the leaves using a large vacuum, which shreds and shoots them into a covered dump wagon. The shredded leaves can then be composted.

The process at Spring Grove Cemetery and Arboretum in Cincinnati, Ohio is even simpler. There, on 430 acres, they blow the leaves away from markers and flower beds, then mulch them with riding mowers. The same can be accomplished at the Elm Street Cemetery if the push mowers are fitted with mulching blades. These are specially designed blades that pulverize clippings. For example, some blades have jagged teeth instead of a traditional-looking cutting edge. Others have multiple cutting edges. Many mulching mowers employ kickers or tails that force blades upward for repeated chopping. Mulched leaves contain less nutritional value than green clippings, so the main value is in reducing your need to dispose of huge volumes of leaves in the fall.

Examples of commercial mulching mowers include the Toro 21" Heavy Duty models, Snapper Pro with their Ninja blade, and the Honda HRC Commercial mowers. All get very high ratings from professional users.

Maintenance Schedule

We also recommend that the Highways and Grounds Division create a cemetery maintenance program that outlines specifically what must be done by season and/or month. Such a maintenance program can assist in quality control, clearly describes the minimal level of care, and ensures that staff are always aware of what needs to be done. One example of such a plan can be found at www.holyroodcemetery.org/fallservices.pdf. There are additional maintenance schedules and checklists available at the Chicora website (http://chicora.org/lawn-maintenance.html).

Recommendations

The historic landscape has been severely damaged by the inappropriate removal of trees, shrubs, and even below ground tombs. This practice must cease immediately and an effort to restore the damaged landscape is a critical priority.

Proper maintenance and upkeep of Braintree's cemeteries requires at least one three-person crew working year-round. We recommend hiring to achieve that level of cemetery staffing. In addition, this crew should be dedicated solely to cemetery needs and activities. The Supervisor should work in the field with the crew.

Technicians and the supervisor should be encouraged to become certified by PLANET (or some similar local organization) in categories such as Landscape Technician – Exterior, Turfgrass Professional, or Ornamental Landscape Professional.

The town should work to ensure continuity of the staff by providing appropriate pay levels, fringe benefits, and educational opportunities (such as certification opportunities).

The planned landscape has been damaged by improper tree and shrub removal. It is necessary to institute a program that replants the cemetery, restoring its original design and beauty.

The use of large deck mowers in the cemetery is causing damage to monuments and the practice must be stopped. Only 21-inch walk-behind mowers should be used on the cemetery grounds. All mowers should be fitted with closed cell foam bumpers to reduce accidental damage to the stones. These bumpers should be inspected on a weekly basis and replaced as needed.

Mower blades should be periodically sharpened to prevent the tearing of the grass stems evidenced during this assessment.

The nylon trimmer line being used by the town currently is too heavy and is resulting in damage to monuments. The existing 0.095" line must be replaced by line that is not over 0.065".

Soil analysis has been conducted and reveals that adjustments are necessary for the turfgrass. Fertilization should be organic, slow release in order to minimize salt damage to the stones.

Limited pre-emergent and post-emergent weed control should be instituted at the cemetery, taking care to avoid stones. The herbicides will affect the stones and this work will need to be very carefully done to ensure that the stones are not damaged. However, a better stand of turf will reduce the overall maintenance cost of mowing.

We recommend a gradual program of turf renovation until sustainable stands of a single turf are achieved.

The cemetery soil is compacted and we recommend at bi-yearly hollow tine core aeration. After several years it may be possible to aerate once a year.

The water bib in the cemetery should be inspected and repairs made if necessary. Consideration should be given to replacing the existing bib with freeze proof, lockable faucet, eliminating the need to drain the line during the winter.

Tree and shrub selection within the cemetery should be focused on historically appropriate species, based on identification of either original planting lists, replication of identified historic species in the cemetery, or using period lists. Species should, however, be evaluated to eliminate those with problems such as suckers, surface roots, inherent weakness, etc. The town should develop a tree plan to ensure that when any tree must be removed, an appropriate replacement is planted in its place.

All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Nursery stock should be carefully inspected and specimens with wounds, crooked or double leaders, broken branches, or girdling roots should be rejected.

Trees within the cemetery should be fertilized on a routine basis. This will require that soil testing be conducted every 3-5 years. The results should be evaluated by an ISA Certified Arborist. All trees should be inspected yearly and after any storm with winds in excess of 55 mph.

The Cemetery evidences a number of tree maintenance issues, likely the result of inadequate staff. There are trees in the cemetery that require pruning for thinning or cleaning. These issues should be dealt with immediately. A contract should be awarded to an ISA Certified Arborist for the work.

The cemetery evidences weedy trees and brush, particularly along the walls, that need to be removed before they cause damage to the wall or nearby monuments. Their existence reveals that those performing cemetery maintenance are either not adequately trained or that the staffing is too low. This requires immediate attention.

Shrubbery is not common, but the little still present is being mowed over or sheared using a nylon trimmer. There is much damage as a result. These practices must cease immediately. If the town cannot devote trained staff to care for the shrubbery, a contract be let specific to this purpose.

Poison ivy in the cemetery requires hand clipping following by painting of an herbicide on the cut stem.

Leaves and debris must be collected prior to mowing. Currently it appears that leaves are largely ignored and trash is mowed over. These practices degrade the cemetery and must be stopped.

Highways and Grounds should develop a maintenance schedule for the Elm Street Cemetery to ensure that all aspects of the cultural landscape are appropriately maintained on a regular basis.

OTHER MAINTENANCE ISSUES

Trash

The cemetery exhibited much trash during our assessment, suggesting that routine maintenance does not involve careful inspection and collection of trash prior to mowing. In fact, as previously mentioned, it appears that much trash is simply being mowed over. Some of the trash, such as items on the boundary fence, appears to have been present for a considerable period. It is critical that the Highways and Grounds Division take the time necessary to collect trash, at least on a weekly basis.

In another location we found a large accumulation of cigarette butts, apparently discarded in the cemetery from a second story bathroom window overlooking the cemetery on its western side. The Highways and Grounds Division should contact the owner of this structure and inform them of the problem, seeking assistance in preventing this littering. Absent cooperation the matter should be turned over to law enforcement in an effort to prevent the problem from continuing. Of course the cigarette butts must be collected by Highways and Grounds.

The town has not placed trash containers at the cemetery because the containers are subject to vandalism and therefore are rarely used. There are, of course, vandal-resistant containers, but the cemetery has relatively low visitation and it isn't

Figure 40. Trash at the Elm Street Cemetery.

clear if this trash is being deposited by visitors or adjacent property owners.

In either event, it is critical that the town be more proactive in the maintenance of the site – including timely and comprehensive trash collection. This alone may serve to reduce the trash and improve the overall appearance of the cemetery.

Signage

The cemetery lacks effective signage. During our assessment the only signage we observed was carved into the granite entrance gate pillar, "First Burial Ground of Second Precinct 1716."

Figure 41. The only signage at the cemetery is understated, difficult to see from the street, and fails to promote visitation.

From a cemetery preservation perspective, signage is of four basic types: identification, regulatory, informational, and interpretative. They are generally recommended in this same priority.

Identification signage might include the name of the cemetery and might also include the cemetery's date of founding and historic significance (i.e., eligible for listing on the National Register). While the granite entrance gate provides a name and a beginning date, there is no other explanation. In addition, this sign is useful only once one is already at the cemetery. The town should consider additional signage directing visitors to the cemetery.

Regulatory signage specifies laws, regulations, or expected standards of behavior. We recommend that the town develop signage dealing with, minimally, these issues (perhaps with some modifications of language as might be needed):

- The cemetery is open from 8am to 5pm. Any individual in the cemetery at other times is subject to arrest for trespass.
- Many of the stones in this cemetery are very old and may be easily damaged. Consequently, absolutely no gravestone rubbings will be allowed.
- The stones and monuments in this cemetery are fragile. Please refrain from leaning, sitting, or climbing on any monument or mausoleum. All children must be escorted by an adult.
- Absolutely no alcoholic beverages, fireworks, or fire arms are allowed in the cemetery. Proper conduct is expected at all times.
- No pets are allowed in the cemetery.
- Flowers will be removed by the staff 10 days after holidays or when the arrangements become wilted and unsightly.
- No plantings are allowed within the cemetery and the Town will enforce its right to remove any plantings deemed inappropriate, diseased, or damaging the cemetery.

- For additional information concerning maintenance issues, please contact the Town of Braintree Public Works Department at _____. In case of emergency contact _____.

The last two types of signage are informational (for example, directional signs) and interpretative (information on historic people buried in the cemetery).

The cemetery is not large enough to require informational signs and interpretative sign may not be necessary at this time.

The Town, however, should consider developing an interpretative brochure, such as a walking tour of the cemetery. This is a relatively inexpensive device that could serve to promote the resource, as well as provide information to those visiting the site.

Such brochures, however, should avoid focusing only on local history – creating what has been called the "old dead white man" trap. Instead, historical research should focus on a wide variety of interests. The brochure should contain a history of the cemetery, as well as the regulations. It could talk about eighteenth and nineteenth century mortuary customs, provide some brief information on the symbolism seen on the slate and marble stones, and place the cemetery in a broader regional context.

It may be helpful to have the brochure keyed to numbers placed at the individual graves, helping individuals better find the listed monuments. The brochure could be made available to visitors at the entrance gates.

Other Public Outreach

It is almost impossible to find even the briefest mention of the Elm Street Cemetery on the Town's website. Even the web page for the town's Historical Commission or the page providing a history of the community fails to mention the town's burial grounds. This might lead to the impression that the cemetery is little more than an afterthought to the community, rather than an important historical resource. The town should correct this by prominently identifying the site, including historical information, as well as cemetery specific regulations. The web site should also be a focus point for preservation efforts, including documents such as this assessment, and eventual conservation information. The current lack of information gives the impression that these resources are not viewed as important to the community – and it fails to use the available resources to attract others to visit and explore the burials grounds.

The Town should also consider a detailed stone-by-stone recordation of the cemetery, posting the results on the web. At present, only a very incomplete record is provided at http://www.interment.net/data/us/ma/norfolk/elm_street.htm and at http://files.usgwarchives.net/ma/norfolk/towns/braintree/cemeteries/elmst.txt. Neither of these sites combine transcriptions with photographs of the graves.

The Cemetery as a Dog Park

We have previously remarked on the problems resulting from the use of the cemetery as a dog park. Stones have urine stains, feces are not being collected, and one of the assessment staff was bit by a dog off leash during this project (Figure 13).

Braintree has been unable to agree on creating a dog park on land recently purchased surrounding the old Norfolk County Hospital (http://www.wickedlocal.com/braintree/newsnow/x231959006/Panel-reaches-no-conclusion-on-Braintree-dog-park-site), at least partially because of liability and concerns that those using the park will not clean up after their animals. These concerns are no less valid at a historic site with fragile stones.

We understand that the Highways and Grounds Division staff has provided some authorization for locals to use the cemetery. This is a poor decision. The town already has an ordinance requiring all animals be leashed (6.04.060), as well as making it a criminal violation to allow an animal to defecate on public

property (6.04.130). These laws must be enforced. The cemetery must not be allowed to become Braintree's de facto dog park.

The American Flag Garden

At some point a small oval garden and flagpole were erected in the cemetery. These features are out of place and detract from the historic significance of the cemetery. In addition, they are not being adequately maintained. The garden is weedy and the condition of the flag is disgraceful.

Figure 42. Garden and flag at the Elm Street Cemetery are poorly maintained and out of place. They should be relocated to another town property.

The flag pole and garden should be removed from the Elm Street Cemetery. It might be relocated, if desired, to the currently active portion of the Braintree cemetery on Plain Street.

Recommendations

Trash is a problem throughout the cemetery. The property should be more frequently inspected for trash and trash should be collected prior to mowing. Staff should also be aware of items discarded in the cemetery and remove them at once. While trash containers may not be critical currently, they may become necessary with increased visitation.

Regulatory signage is critical at the entrance to the cemetery. It should minimally deal with proper care of the monuments, prohibiting rubbings and warning visitors of their fragile condition; it should clearly state the hours the cemetery is open; it should prohibit certain behaviors and actions, such as use of alcoholic beverages; it should prohibit pets; it should established simple guidelines for plantings, as well as the placement and removal of floral and grave decorations; and it should include contact and emergency information.

There is no interpretative signage or brochure. Both could be used at the cemetery to encourage more effective use of the facility and help ensure its preservation. Development of a brochure is relatively cost effective and should represent an immediate action, followed by on-site signage as funding allows. The brochure should include more information on the cemetery landscape, stone carvers, funerary customs, and reasons that a visitor should be interested in the individuals buried in the cemetery, as well as providing the cemetery regulations.

The town's website provides no information concerning the cemetery, its history, landscape, care, or regulations. The town is missing an exceptional opportunity to engage an increasingly web savvy public in the cemetery's care and preservation. The addition of genealogical information could also be of immense interest to historians and family researchers. The town

could also better promote the cemetery as a tourism resource.

The cemetery must not become a de facto "dog park." We have seen damage to stones and landscape as a result of unrestrained dogs in the cemetery. This creates a significant liability and detracts from the dignity and historical significance of the cemetery. The town currently has ordinances prohibiting these actions and they must be enforced.

The garden and flagpole in the cemetery are out of place and detract from the historic significance of the site. They should be removed and, if desired, relocated at the Plain Street Cemetery.

CONSERVATION ISSUES

What is Conservation?

Conservation is *not* restoration. Restoration means, very simply, making something "like new." Restoration implies dramatic changes of the historic fabric, including the elimination of fabric that does not "fit" the current "restoration plan." Restoration is inherently destructive of patina and what makes a property historic in the first place. The "restorer" of a property will know nothing of the Secretary of the Interior's Standards for Preservation and care even less.

One of the most important early writings was that of nineteenth century art critic and observer John Ruskin. In *The Seven Lamps of Architecture* published in 1849 and in particular, "The Lamp of Memory," Ruskin introduces us to the issue of trusteeship where he explains,

> it is again no question of expediency or feeling whether we shall preserve the buildings of past times or not. We have no right whatever to touch them. They are not ours. They belong partly to those who built them, and partly to all the generations of mankind who are to follow us.

Ruskin also crisply stated the difference between restoration and repair, noting that "restoration" means,

> the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed.

In contrast, conservation can be defined as preservation from loss, depletion, waste, or harm. Conservation seeks to limit natural deterioration.

Conservation will respect the historic fabric, examine the variety of options available, and select those that pose the least potential threat to the property. Conservation will ensure complete documentation, whether it is of cleaning, painting, or repair. Conservation will ensure that the work done today does not affect our ability to treat the object tomorrow.

Standard for Conservation Work

The Town of Braintree is the steward of this cemetery, holding what belonged to past generations in trust for future generations. As such the city bears a great responsibility for ensuring that no harm comes to the property during its watch.

One way to ensure the long-term preservation of this property is to ensure that all work meets or exceeds the Secretary of the Interior's Standards for Preservation, discussed on pages 2-4 of this study.

Another critical requirement is that the town ensure that any work performed in the cemetery – whether it involves the repair of iron work, the cleaning of a stone, or the reconstruction of a heavily damaged monument, be conducted by a trained conservator who subscribes to the Standards of Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC).

These Standards cover such issues as:

- Do no harm.
- Respect the original fabric and retain as much as possible – don't replace it needlessly.
- Choose the gentlest and least invasive methods possible.

- Is the treatment reversible? Is retreatment possible?
- Don't use a chemical without understanding its affect on the object and future treatments.
- Don't falsify the object by using designs or materials that imply the artifact is older than it is.
- Replication and repairs should be identified as modern so that future researchers are not misled.
- Use methods and materials that do not impede future investigation.
- Document all conservation activities – and ensure that documentation is available.
- Use preventative methods whenever possible – be proactive, not reactive.

The AIC Code of Conduct also requires a professional conservator provide clients with a written, detailed treatment proposal prior to undertaking any repairs; once repairs or treatments are completed, the conservator must provide the client with a written, detailed treatment report that specifies precisely what was done and the materials used. The conservator must ensure the suitability of materials and methods – judging and evaluating the multitude of possible treatment options to arrive at the best recommendation for a particular object.

General Types of Stone Damage

Although a stone-by-stone assessment of damaged monuments is included in this assessment as an appendix, this section will provide some general observations concerning the types of problems faced by the town's cemetery.

Broken Stones

There are numerous examples of broken stones. Many of these stones should receive a high priority for conservation treatments since the stones are on the ground and subject to additional damage, increasing the eventual cost of appropriate repair. Stones on the ground are walked on, may have mowers run over them, and if they are marble are subject to greater acid rain damage. It is always critical to erect fallen stones.

The detailed treatment proposals and cost estimates provided in the Appendix will allow the town to develop a reasonable budget for this conservation work. In most cases gravestones are fragile and their repair is delicate work. There are many commercial products on the market used by many commercial stone companies, which are inappropriate for (and often damaging to) historic stone.

Appropriate conservation treatment will usually involve drilling and pinning, carefully aligning the two fragments. Threaded 316 stainless steel rod (or occasionally fiberglass) and epoxy adhesives formulated for the specific stone are used in this type of repair. Diameters and lengths of pins vary with the individual application, depending on the nature of the break, the thickness of the stone, its condition, and its expected post-repair treatment.

Sometimes pins are not used in a misguided or misinformed effort to save time and money. Instead the pieces are simply joined using a continuous bead of epoxy or some other adhesive. Experience indicates that for a long-lasting repair, particularly in structural applications, use of pins is necessary. Moreover, most adhesives are far stronger than the stone itself, meaning that failure of the repair is likely to cause additional damage to the stone. An exception to this is the repair of slate stones, which are usually not drilled.

There are several examples of stones that have received "simple" epoxy repairs in the past where the repair has failed. We also see that the quality of past repairs throughout the cemetery is poor, evidencing inferior workmanship. Epoxy is consistently found on the surface of the stones, turning yellow with exposure to UV light.

Ferrous Pins

Several stones were observed with ferrous pins and these should be given a high treatment priority since, left untreated, the corrosion will cause significant spalling, cracking, and breakage of the stones. In these cases it will be necessary to use diamond core drills to remove

Figure 43. Examples of damaged stones requiring professional conservation treatments. Upper left shows a broken slate stone. Upper right is a broken marble stone that also exhibits setting using ferrous pins. Middle row left is a slate stone that fell and was never repaired. Today repair is impossible. Middle row right shows a failed "simple epoxy" repair. Bottom row left shows poor application of epoxy. Bottom row right shows a spalling slate stone that has been repaired using hard Portland cement. This repair is failing as the concrete is beginning to crack and allow water to intrude into the damaged slate, causing additional freeze-thaw damage.

Figure 44. Example of a tilted stone that has been improperly "reset" using a branch to prop it up.

the ferrous pins. They will then need to be replaced with stainless steel pins.

After any such repairs it will be necessary to fill the voids with a natural cementitious composite stone material resembling the original as closely as possible in texture, color, porosity, and strength. This type of repair may be used to fill gaps or losses in marble and is often used to help slow the spalling of slate stones.

Under no circumstances should latex or acrylic modified materials be used in composite stone repair. These additives may help the workability of the product, but they have the potential to cause long-term problems. Such products are not appropriately matched in terms of strength or vapor permeability.

More suitable materials include Jahn (distributed by Cathedral Stone) or the lime-based mortars of U.S. Heritage. These closely resemble the natural strength of the original stone, contain no synthetic polymers, exhibit good adhesion, and can be color matched if necessary.

In the past some slate stones that were spalling were repaired using a hard Portland cement to fill the spalls in an effort to prevent additional spalling as well as freeze-thaw damage from water. The Portland cement is too hard and causes additional damage.

All infill work should be conducted by a trained conservator. The Jahn products, in fact, require certification in their use through Cathedral Stone.

Tilting and Simple Resets

Throughout the cemetery we observed seriously leaning stones. Some are headstones, others are set on various bases. When this occurs to headstones, the tilt may be sufficient to precipitate a ground break, dramatically increasing the cost of repair. For other monuments the tilt may be sufficient to cause the monument to fail and, in the process, there may be additional damage, or it may fall on a cemetery visitor.

Monuments should never be reset using concrete, but rather should be set in pea gravel. This approach allows the stone some movement should it be accidentally impacted by lawn maintenance activities. The pea gravel will also promote drainage away from the stone, helping the stone resist the uptake of soluble salts.

Resetting of a low stone on a base requires that the base first be leveled, again using pea gravel. Afterwards the stone can be reset using a high lime mortar, typically a 1:2.5 mix of NHL 3.5 and sand. This mix should be relatively dry to prevent staining the base and all excess mortar should be cleaned off immediately.

While resetting can be done by a conservator, it is a task that volunteers can readily perform. The exception are larger stones that require drilling and pinning for stability.

It is important to avoid inappropriate resetting methods. For example, we observed one tilted stone that had been "leveled" using a bit of tree branch. This will eventually decay, causing the stone to again fall, perhaps causing additional damage. It is also important to fully remove all old setting material, such as the Portland cement that had been used initially to set this stone (Figure 44).

Figure 45. Examples of displaced or orphan stones at the Elm Street Cemetery. Top row illustrates slate fragments. Middle row illustrates intact stones with their bases removed from the grave site and "stored" on site – resulting in the loss of the original grave. Bottom row shows two footstones displaced from their associated main stone and leaning against trees.

Table 6.
Comparison of Different Cleaning Techniques

Cleaning Technique	Potential Harm to Stone	Health/Safety Issues
Sand Blasting	Erodes stone; highly abrasive; will destroy detail and lettering over time.	Exposure to marble dust is a source of the fatal lung disease silicosis.
Pressure Washers	High pressure abrades stone. This can be exacerbated by inexperienced users. Pressures should not exceed 90 psi.	None, unless chemicals are added or high temperature water is used.
Acid Cleaning	Creates an unnatural surface on the stone; deposits iron compounds that will stain the stone; deposits soluble salts that damage the stone.	Acids are highly corrosive, requiring personal protective equipment under mandatory OSHA laws; may kill grass and surrounding vegetation.
Sodium Hypochlorite & Calcium Hypochlorite (household and swimming pool bleach)	Will form soluble salts, which will reappear as whitish efflorescence; can cause yellowing; some salts are acidic.	Respiratory irritant; can cause eye injury; strong oxidizer; can decompose to hazardous gasses.
Hydrogen Peroxide	Often causes distinctive reddish discolorations; will etch polished marble and limestone.	Severe skin and eye irritant.
Ammonium Hydroxide	Repeated use may lead to discoloration through precipitation of hydroxides.	Respiratory, skin, and eye irritant.
D/2 Architectural Antimicrobial	No known adverse effects, has been in use for nearly 10 years.	No special precautions required for use, handling, or storage.

Displaced Stones

Throughout the cemetery we observed displaced or orphan stones. These are stones – or fragments of stones – that are no longer clearly associated with a specific grave. They are often found leaning against other stones or trees, sometimes flat on the ground (typical of a fallen stone), or occasionally stacked together. At present there appears to be no procedure to ensure that damaged stones are identified and cared for. In most cases it appears that broken stones have been left lying where they fell – this is irresponsible management that endangers the stones and shows disrespect for both the monument and the individual buried in the cemetery.

Every cemetery must develop some mechanism to care for these stones, protecting them from additional loss or damage. Repairing damaged stones is the surest way to protect them, but in many cases fragments can be provided temporary storage until funding is available for repair. Temporary storage should be in a dry, secured facility. Individual items must be marked with information concerning where they were found. One solution would be to mark the location on a map and include that map with the stored stones (Ben Meadows "Rite-in-the-Rain Copier Paper # 145110). Another approach is to use aluminum tags (Ben Meadows Aluma-Boss 9" Aluminum Wire Tags # 152428) secured to the stone fragments using nylon string.

Whatever technique is used, it should ensure the preservation of the stones, as well as ensuring that the stones can be correctly replaced in the cemetery once repaired.

Another problem evidenced in the Elm Street Cemetery is the intentional movement of stones. In the old section we observed that a row of footstones had been removed from their headstones and used to "fill in" a line of burials. While this may make the burial ground appear "fuller," "larger," or "more complete," it is inappropriate to separate footstones and headstones. These stones must be relocated.

Another issue observed in the Elm Street Cemetery is the removal of footstones from their location at the foot of the grave and placement immediately behind the headstone. This was typically done to make mowing easier – but in so doing the historic landscape was altered and the

Figure 46. Footstones displaced for the convenience of mowing. These footstones should be reset about 5' behind their respective headstones.

grave itself was violated. Headstones and footstones must not be moved for the convenience of the caregivers. These footstones should be relocated ca. 5' from the headstone to replicate the original setting.

Cleaning of Monuments

A significant amount of damage may result from inappropriate cleaning techniques. The most common cleaning technique is the use of a bleach product – probably because bleach (either sodium hypochlorite or calcium hypochlorite) is widely available and inexpensive. It is, nevertheless, unacceptable for historic monuments since it creates an artificially white marble and, over time, will cause erosion and yellowing of the stone.

Table 6 discusses problems with a variety of "common" stone cleaning processes widely used by commercial firms and the public. Providing this sort of information to families who have loved ones buried at the cemetery may help deter abusive cleaning.

While cleaning is largely an aesthetic issue, we did observe a number of stones where lichen was so heavy that the stone had become illegible. This detracts from the experience of the visitor and may encourage the use of inappropriate materials to clean the stones. In some cases the lichen is actually eating into the surface of the granite or slate stone, causing permanent disfiguration. As a consequence, lichen obscured stones should be cleaned by the Town using low pressure water and D/2 Biological Solution distributed by Cathedral Stone.

Another issue falling under cleaning is the removal of graffiti. Examples can be found on the Arnold and Niles tombs. In both cases the vandalism was noted in 1999 – and was still present during our 2010 assessment.

Graffiti is a sign of decay and makes people feel that their neighborhood – or in this case cemetery – is being lost to gangs and crime. If allowed to remain, it sends the message that the community is unconcerned about its appearance. It becomes an open invitation for loitering, littering, more graffiti, and crime. It hurts property values and frightens away businesses.

Figure 47. Graffiti on the Elizabeth Niles box tomb has been there for over a decade.

Graffiti is a crime that costs communities more than $12 billion a year to clean up. Although graffiti vandals come from varied social, ethnic,

and economic backgrounds, graffiti is very much a youth-related problem, with about half of all acts committed by suburban males from preteens to early twenties.

The best way to prevent graffiti is to remove it as quickly as possible, preferably within the first 24 hours. It is unfortunate that Braintree left these scars on their cemetery for a decade.

Many of the traditional responses to graffiti, such as painting over it, using harsh chemicals, or using pressure washing, are *inappropriate* for a historic cemetery. Instead we recommend the use of various safe paint removers offered by Cathedral Stone especially for stone (http://www.cathedralstone.com/products/masonre.aspx).

Wear and Erosion of Monuments

It is worth mentioning that many of the marble monuments at the Elm Street Cemetery exhibit extensive erosion with the resulting loss of inscriptions and details. This is likely the result of acid rain and other natural factors, perhaps combined with the quality of the prevailing marble being used in the cemetery.

Some of these monuments may be sufficiently important to deserve intervention using a process known as consolidation. Simply put, this is the use of a chemical that helps strengthen the stone; but the use of consolidation is not without controversy. This controversy has to do with the longevity of the treatment (probably a decade or so) and the possibility that its use may block future conservation treatments. Thus, we recommend reserving its use for only the most damaged materials, essentially considering its use appropriate only as a last resort.

There are two primary chemicals used, both manufactured by Prosoco. The first is HCT, a water-based material used on marble to reduce the effects of acid rain, pollution, and normal weathering. There seem to be few, if any, adverse side effects of this treatment. Its primary limitation is the cost of treatment.

The second consolidation treatment is OH100. Also used on marbles after pre-treatment with HCT, the OH100 consists of liquid silicic ethyl esters designed to be converted into a glass-like silicon dioxide gel in the stone, which serves to bind the stone together, actually providing additional strength.

While HCT is appropriate for the Elm Street stones, OH100 is a solvent base and its VOCs exceed the limits allowed by Massachusetts. This precludes its use on-site, although the stones could be removed to our lab, treated, and returned.

Ironwork Conservation

Although ironwork has been mentioned previously in the section on Fixtures and Furnishings, the critical issues will be briefly reviewed again here.

Figure 48. Weathering of marble showing the erosion of the stone with veins of harder stone standing "proud."

Every effort should be made to retain all existing ironwork, regardless of condition. Replacement with new materials is not only aesthetically inappropriate, but often causes galvanic reactions between dissimilar metals. When some of the existing ironwork is incomplete, a reasonable preservation solution is to repair and maintain the remaining work rather than add historically inappropriate and incorrect substitutes. If replacement is desired, salvage of matching elements is preferred over recasting. Replication is typically not an appropriate choice since it is by far the most expensive course of action, and is often done poorly. We have recommended recasting the various brackets for the boundary fence since this is the only viable method to ensure the function and survival of this fence. Our choice for this work, the Robinson Iron Works in Alabama, is a foundry with an exceptional reputation. Nevetheless, the cost per unit is nearly $300, clearly indicating the expense of quality work.

The single best protection of ironwork is maintenance — and this revolves around painting. We have previously outlined specific steps and materials to use, typically focusing on minimal cleaning, followed by a coat of rust converter and a two top coats of a flat or semi-gloss alkyd paint. Where a coating is still present it is usually necessary to remove this paint to near white metal in order to prime and paint successfully.

It may be appropriate to use small stainless steel braces with stainless steel nuts and bolts to re-attach rails to posts. While welding may be appropriate in some cases, once welded, pieces are no longer able to move with expansion/contraction cycles, and this may cause internal stresses that leading to yet additional structural problems.

In addition, while wrought iron is easy to weld because of its low carbon content, cast iron contains up to 4% carbon and is difficult to weld. Welding on cast iron should be done only by firms specializing in this work and capable of preheating the elements.

When used, welds should be continuous and ground smooth, in order to eliminate any gaps or crevices. When finished, it should be difficult to distinguish the weld — the original metal should blend or flow directly into the reattached part.

Another problem observed is the burial of the bottom fence rail in soil. In such cases moisture is held against the ironwork, promoting extensive corrosion.

When the fence is buried in the soil all that needs to be done is to resculpt the ground, lowering it below the bottom rail. This can not only resolve the corrosion problem, but can also promote better drainage away from the ironwork.

Specific Findings

The stone by stone assessment identified 261 stones, fences, and tombs evidencing deterioration. If the boundary walls and fences were added (costs have not been calculated for these three objects), the number would increase to 264. The estimated treatment cost for the 261 objects is $200,925. While a very large sum, this represents the cost of decades of deferred maintenance. It also provides some indication of the overall condition of the objects that comprise this burial ground and should provide some indication of the urgency. Without these treatments the cemetery will continue to deteriorate; eventually it will be impossible to recover from the gradual loss of stones and ironwork.

The older or northern half of the cemetery contains 172 objects requiring treatment, compared to only 89 in the newer section. While some of this is the result of age differences, with older objects often fairing more poorly than newer, another significant factor is the removal of footstones from graves in the older section. Sixty-four of the 172 objects are footstones that require appropriate resetting. Had these footstones not been moved for the convenience of mowing, this old section would have contained only about 108 objects requiring treatment.

In spite of the numerical difference, the treatment cost for the southern section is $106,950, compared to only $93,975 in the older, northern section. The reason for this difference is

that the newer section, with considerably more marble stones, reveals more significant deterioration. In addition, two of the three tombs requiring repair are located in the new section, as are all of the assessed fences. The new section contains considerably more variability – and hence a greater maintenance cost.

It is also important to observe that nearly 43% of the assessed objects have a treatment priority of 1 – indicating that the deferred maintenance practices have reached a critical point where failure to act will result in significant and irrecoverable losses to the cemetery.

These Priority 1 repairs have a cost of $110,300 and represent what the town should seek immediate funding to cover. The Priority 2 repairs are nearly as critical and represent a total cost of $86,525. Priority 3 repairs, which could be postponed for several years, account for only 17 objects and have a cost of only $4,100. Clearly there is a need for immediate action.

Recommendations

All work in the cemetery should be conducted by trained conservators who subscribe to the Code of Ethics and Standards of Practice of the American Institute for Conservation of Historic and Artistic Works (AIC). This should be the minimum level of competency required by the town on all projects.

There are some treatments, such as resetting, that can be undertaken by volunteers or town staff with training and oversight. The town, however, should not attempt repairs beyond the skill level of the individuals available.

The city should strictly limit replacement of historic fabric and require that all such modifications receive approval.

Many of the marble stones may warrant consolidation using HCT and perhaps OH100 if moved off-site. These treatments would help the stones better weather the acid rain and reduce loss of carving detail and inscriptions.

Cleaning is necessary of those monuments exhibiting heavy lichen growth obscuring the inscription. This cleaning may be done by town staff as long as it is conducted in a manner that does not endanger the stone or eliminate the stone's patina. We recommend the use of D/2 Biological Solution and soft scrub brushes. Pressure washers must NOT be used.

PRIORITIES AND FUNDING LEVELS

Recommended Priorities

Table 7 lists the recommendations offered throughout this assessment, classifying them as a *first, second, or third priority*.

First priorities are those we recommend undertaking during the current fiscal or calendar year. Some are issues that have the potential to affect the public health and safety and consequently require immediate attention. Most, however, are planning issues that require immediate attention to "set the stage" for future actions. We strongly believe that most cemetery projects fail through inadequate or inappropriate planning – thus, we recommend in the strongest possible terms that the town engage in the necessary planning to help ensure success.

Second priorities are those which should be budgeted for over the next 2 to 3 years. They represent urgent issues that, if ignored, will result in both significant and noticeable deterioration of the Elm Street Cemetery as a historic resource.

The most costly of these actions will involve the conservation treatments. These costs are the result of critical maintenance actions being deferred. As a result, many of the stones are today at a crossroad. If appropriate conservation treatments are not undertaken, it is likely that many of the stones in the Elm Street Cemetery will be forever lost.

Third priorities are those that may be postponed for 3 to 5 years. They are issues that can wait for appropriations to build up to allow action. However, since the cemetery care fund is reported to contain upwards of $700,000, there is no legitimate reason for the town to postpone these actions for long. Some actions are also less significant undertakings that require other stages to be in place in order to make them feasible or likely to be successful. Although they are given this lower priority they should not be dismissed as trivial or unimportant.

Massachusetts's lawmakers were progressive and in 2000 saw a need to ensure stable funding in order to preserve open space and fund historic preservation. As a result, the Community Preservation Act as passed, allowing communities to devote some portion of their property tax revenue to these goals. In 2002 Braintree accepted this invitation and allocated 1% of its property tax to the initiative. Braintree's Planning and Community Development Office oversees these funds.

With the 2010 FY budget projecting property tax revenues of about $64,500,000, this would provide about $645,000 for projects such as the Elm Street Cemetery. We strongly recommend that the cemetery begin receiving substantial funding from these funds for preservation activities recommended by this study. This is critical step in the long-term preservation of the Elm Street Cemetery.

Budget estimates are offered only for direct conservation issues (in the appendix of treatment recommendations) and reflect 2010FY costs. No budgets are offered for other tasks since this is beyond the scope of this assessment.

Just as parks or water service or police protection have yearly costs, so too do historic resources. Preservation costs must be continuous. The town cannot, every few years, suddenly remember the cemetery and devote attention. The cemetery must receive constant and on-going care and preservation efforts. The central problem is that Braintree has, for years, deferred these costs, creating cumulative problems that now must be addressed or else the resource will be so degraded that its continued significance to the community will be doubtful. Significant damage has already been done to the cemetery by the demolition of tombs and dramatic alteration of the landscape.

Actions such as these must not be allowed to continue. The Elm Street Cemetery is an exceptional and unique resource and it deserves every possible effort to ensure its long-term preservation.

Table 7.
Prioritization of Recommendations

Priority	Recommendation
First – this fiscal or calendar year	1.1 All decisions regarding modifications, alterations, additions, or other actions affecting the Elm Street Cemetery should be carefully evaluated against the Secretary of the Interior's Standards for Preservation. (http://www.nps.gov/history/hps/tps/standguide/preserve/preserve_standards.htm). 1.2 At one or more times in the past the Town has inappropriately removed tombs from the cemetery landscape, dramatically altering the appearance of the cemetery and affecting significant original historic fabric. Such actions are detrimental to the long-term preservation of the cemetery and its historic significance. The actions are also disrespectful to those buried in the cemetery. Special care should be taken to protect all remaining historic fabric and the context. 1.3 Braintree should expand its existing city code to include specific provisions including limiting the placement of markers without permission, establishing the hours the cemetery grounds are open, and establishing penalty provisions. The city should also establish a decoration policy specifying how long flowers and other decorations may be placed on graves and limiting the types of decorations. 1.4 The cemetery is being inappropriately used by dog owners, who are allowing their animals to run off-leash. Dogs are urinating on stones and feces are not being picked up. The cemetery should be clearly posted prohibiting any animals except service animals – and this must be enforced by the town. 1.5 The town should evaluate its procedures for handling perpetual care funds to determine if they are consistent with good cemetery practice, as well as the General Laws of Massachusetts. Perpetual care funds should be escrowed in some fashion and invested to maximize the return, ensuring that the cemetery has a long-term financial support. 1.6 Loose ironwork should be secured using woven stainless steel wire or collected and safely stored until repair is funded. 1.7 Proper maintenance and upkeep of Braintree's cemeteries requires at least one three-person crew working year-round. We recommend hiring to achieve that level of cemetery staffing. In addition, this crew should be dedicated solely to cemetery needs and activities. The Supervisor should work in the field with the crew. 1.8 The planned landscape has been damaged by improper tree and shrub removal. It is necessary to institute a program that replants the cemetery, restoring its original design and beauty. 1.9 The use of large deck mowers in the cemetery is causing damage to monuments and the practice must be stopped. Only 21-inch walk-behind mowers should be used on the cemetery grounds. All mowers should be fitted with closed cell foam bumpers to reduce accidental damage to the stones. These bumpers should be inspected on a weekly basis and replaced as needed. 1.10 Mower blades should be periodically sharpened to prevent the tearing of the grass stems evidenced during this assessment. 1.11 The nylon trimmer line being used by the town currently is too heavy and is resulting in damage to monuments. The existing 0.095" line must be replaced by line that is not over 0.065". 1.12 The water bib in the cemetery should be inspected and repairs made if necessary. Consideration should be given to replacing the existing bib with a freeze proof, lockable faucet, eliminating the need to drain the line during the winter. 1.13 The cemetery evidences weedy trees and brush, particularly along the walls, that need to be removed before they cause damage to the wall or nearby monuments. Their existence reveals that those performing cemetery maintenance are either not adequately trained or that the staffing is too low. This requires immediate attention.

Table 7, cont.
Prioritization of Recommendations

Priority	Recommendation
First – this fiscal or calendar year, cont.	1.14 Shrubbery is not common, but the little still present is being mowed over or sheared using a nylon trimmer. There is much damage as a result. These practices must cease immediately. If the town cannot devote trained staff to care for the shrubbery, a contract should be let specific to this purpose. 1.15 Poison ivy in the cemetery requires hand clipping following by painting of an herbicide on the cut stem. 1.16 Highways and Grounds should develop a maintenance schedule for the Elm Street Cemetery to ensure that all aspects of the cultural landscape are appropriately maintained on a regular basis. 1.17 Trash is a problem throughout the cemetery. The property should be more frequently inspected for trash and trash should be collected prior to mowing. Staff should also be aware of items discarded in the cemetery and remove them at once. While trash containers may not be critical currently, they may become necessary with increased visitation. 1.18 All work in the cemetery should be conducted by trained conservators who subscribe to the Code of Ethics and Standards of Practice of the American Institute for Conservation of Historic and Artistic Works (AIC). This should be the minimum level of competency required by the town on all projects.

Table 7, cont.
Prioritization of Recommendations

Priority	Recommendation
Second – over next 2 to 3 years	2.1 We recommend that a multifaceted approach against vandalism be taken. Specific steps include: educate staff to recognize and report vandalism; create a friends group to assist in patrolling the cemetery; contact residents adjacent to the cemetery and ask them to report suspicious activities in the cemetery; develop a form specifically for cemetery-related vandalism; immediately report all vandalism to the police and insist on investigation; and establish a procedure to repair all vandalism quickly. 2.2 The remnant features of destroyed tombs, such as their iron doors, must be identified, cleaned and conserved, and replaced in the cemetery as commemorative markers. 2.3 The Hon. E. Thayer Tomb requires repointing using mortar on the sides and rear, while the front requires repointing using lead. The door must be excavated, cleaned, and conserved. If steps are present, they will require evaluation and possible treatments. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems. 2.4 The S.V. Arnold tomb requires repointing. The graffiti on the lintel above the door must be removed. The door must be excavated, cleaned, and conserved. If steps are present, they will require evaluation and possible treatments. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems. 2.5 The Vinton tomb requires repointing. The extant steel door replacement should be removed and a marble sheet installed to better match the original door. The interior of the tomb should be assessed for water migration, settlement cracks, or other problems. 2.6 The Elizabeth Niles tomb requires repointing. The slate tablet break should be infilled with Jahn M160 to prevent water intrusion. The graffiti on the side of the tomb must be removed. 2.7 The Elm Street Fence has received inadequate maintenance and today requires extensive work. Minimally, the fence should be garnet grit blasted to remove corrosion and adhering paint, caulked, and repainted. Missing elements should be replaced where possible and broken or inappropriate welds should be repaired. 2.8 The perimeter fence is in even worse condition with many of the fence panels missing and much of the mounting hardware too corroded for use. Consequently, the mounting braces and central panel supports will require recasting. The fence requires painting. Downed sections should be replaced to deter hopping the wall at the southwest corner. 2.9 The Vinton Fence requires that downed bars be welded and refitted using lead pointing. The fence requires painting. One bent bar will require straightening. 2.10 The Arnold Family Plot Fence is missing many elements, but these can be readily replaced, set in lead pointing. The fence requires repainting and at least one bar requires straightening. 2.11 The Charles French Plot is the only chain fence still identifiable in the cemetery. Replacement eye bolts must be set using lead. Existing and replacement chain should be painted and rehung. 2.12 The perimeter granite wall is in fair condition, although much of the wall has been damaged by inappropriate pointing with a hard Portland cement. The walls require repointing and two damaged areas will require that displaced stones be reset. 2.13 Technicians and the supervisor should be encouraged to become certified by PLANET (or some similar local organization) in categories such as Landscape Technician – Exterior, Turfgrass Professional, or Ornamental Landscape Professional. The town should work to ensure continuity of the staff by providing appropriate pay levels, fringe benefits, and educational opportunities (such as certification opportunities).

Table 7, cont.
Prioritization of Recommendations

Priority	Recommendation
Second – over next 2 to 3 years	2.14 Soil analysis has been conducted and reveals that adjustments are necessary for the turfgrass. Fertilization should be organic, slow release in order to minimize salt damage to the stones. 2.15 Limited pre-emergent and post-emergent weed control should be instituted at the cemetery, taking care to avoid stones. The herbicides will affect the stones and this work will need to be very carefully done to ensure that the stones are not damaged. However, a better stand of turf will reduce the overall maintenance cost of mowing. 2.16 The cemetery soil is compacted and we recommend at bi-yearly hollow tine core aeration. After several years it may be possible to aerate once a year. 2.17 Leaves and debris must be collected prior to mowing. Currently it appears that leaves are largely ignored and trash is mowed over. These practices degrade the cemetery and must be stopped. 2.18 Regulatory signage is critical at the entrance to the cemetery. It should minimally deal with proper care of the monuments, prohibiting rubbings and warning visitors of their fragile condition; it should clearly state the hours the cemetery is open; it should prohibit certain behaviors and actions, such as use of alcoholic beverages; it should prohibit pets; it should established simple guidelines for plantings, as well as the placement and removal of floral and grave decorations; and it should include contact and emergency information. 2.19 The garden and flagpole in the cemetery are out of place and detract from the historic significance of the site. They should be removed and, if desired, relocated at the Plain Street Cemetery. 2.20 There are some treatments, such as resetting, that can be undertaken by volunteers or town staff with training and oversight. The town, however, should not attempt repairs beyond the skill level of the individuals available. 2.21 Cleaning is necessary of those monuments exhibiting heavy lichen growth obscuring the inscription. This cleaning may be done by town staff as long as it is conducted in a manner that does not endanger the stone or eliminate the stone's patina. We recommend the use of D/2 Biological Solution and soft scrub brushes. Pressure washers must NOT be used. 2.22 The historic landscape has been severely damaged by the inappropriate removal of trees, shrubs, and even below ground tombs. This practice must cease immediately and an effort to restore the damaged landscape is a critical priority. 2.23 Tree and shrub selection within the cemetery should be focused on historically appropriate species, based on identification of either original planting lists, replication of identified historic species in the cemetery, or using period lists. Species should, however, be evaluated to eliminate those with problems such as suckers, surface roots, inherent weakness, etc. The town should develop a tree plan to ensure that when any tree must be removed, an appropriate replacement is planted in its place. 2.24 All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Nursery stock should be carefully inspected and specimens with wounds, crooked or double leaders, broken branches, or girdling roots should be rejected. 2.25 Trees within the cemetery should be fertilized on a routine basis. This will require that soil testing be conducted every 3-5 years. The results should be evaluated by an ISA Certified Arborist. All trees should be inspected yearly and after any storm with winds in excess of 55 mph.

Table 7, cont.
Prioritization of Recommendations

Priority	Recommendation
Second – over next 2 to 3 years	2.30 The town should begin conservation treatments of Priority 1 and 2 stones in the cemetery. Appropriate phasing may involve separating the two cemetery sections into different project phases or separating small monuments from fences and tombs.

Table 7, cont.
Prioritization of Recommendations

Priority	Recommendation
Third – over next 3 to 5 years	3.1 The cemetery is underutilized by the public, largely because it is poorly promoted by the town. Efforts should be made to better promote the history of the Elm Street Cemetery and encourage additional visitation. There is no interpretative signage or brochure. Both could be used at the cemetery to encourage more effective use of the facility and help ensure its preservation. Development of a brochure is relatively cost effective and should represent an immediate action, followed by on-site signage as funding allows. The brochure should include more information on the cemetery landscape, stone carvers, funerary customs, and reasons that a visitor should be interested in the individuals buried in the cemetery, as well as providing the cemetery regulations. 3.2 The town should explore options for making the cemetery accessible. Options include on-line virtual tours and interpretative plaques mounted at the sidewalk entrances. 3.3 The town's website provides no information concerning the cemetery, its history, landscape, care, or regulations. The town is missing an exceptional opportunity to engage an increasingly web savvy public in the cemetery's care and preservation. The addition of genealogical information could also be of immense interest to historians and family researchers. The town could also better promote the cemetery as a tourism resource. 3.4 We recommend a gradual program of turf renovation until sustainable stands of a single turf are achieved. 3.5 The Cemetery evidences a number of tree maintenance issues, likely the result of inadequate staff. There are trees in the cemetery that require pruning for thinning or cleaning. These issues should be dealt with immediately. A contract should be awarded to an ISA Certified Arborist for the work. 3.6 Stone recommended for treatment should be funded. This can most economically be conducted as one contract conducted during the fall, summer, or spring. 3.7 Many of the marble stones may warrant consolidation using HCT and perhaps OH100 if moved off-site. These treatments would help the stones better weather the acid rain and reduce loss of carving detail and inscriptions. 3.8 The Town should complete all conservation treatments to monuments, fences, walls, and tombs. A program of periodic inspection should be established to ensure that routine maintenance is not deferred.

SOURCES

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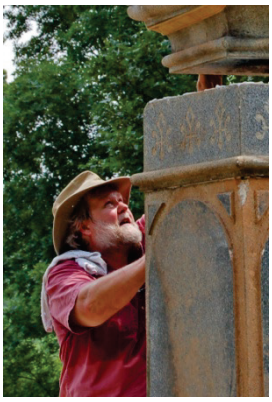
APPENDIX 1 - RESUMES

Michael Trinkley



Education

- B.A., University of South Carolina
- M.A., University of North Carolina at Chapel Hill
- Ph.D., University of North Carolina at Chapel Hill

Professional Experience

- Senior Archaeologist, S.C. Department of Highways and Public Transportation
- Director, Chicora Foundation, Inc.

Specialized Education

- Authorized Jahn Installer
- Heritage US Lime Workshop
- Edison Coatings Workshop
- Preservation & Care of Brownstone Buildings, Technology & Conservation Conference, Boston, MA
- Historic Masonry – Campbell Center for Historic Preservation Studies, Mt. Carroll, IL
- Masonry Analysis and Testing – Campbell Center for Historic Preservation Studies, Mt. Carroll, IL
- History Masonry – College of the Building Arts, Charleston, SC
- Stonework and Ornamental Stone Workshop – Traditional Building Skills Institute, Snow College, Ephraim, UT
- International Lime Conference, Orlando, FL

Professional Memberships

- American Institute for Conservation of Historic and Artistic Works
- Southeast Regional Conservation Association
- National Trust for Historic Preservation
- Association of Preservation Technology
- American Chapter International Building Limes Forum
- Association for Gravestone Studies
- Preservation Trades Network
- US/ICOMOS Brick Masonry and Ceramics Committee

Presenter at Recent Workshops and Seminars

- Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Jacksonville, Florida; Washington, D.C.; Las Vegas, New Mexico; Charleston, West Virginia; 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2001
- Invited Speaker, National Cemetery Preservation Summit, Nashville, TN, 2009
- Invited Speaker, Cemetery Rehab, South Carolina Landmark Conference, SC Department of Archives and History, Aiken, SC, 2006
- Invited Speaker, Planning a Cemetery Preservation Project, People and Places: South Carolina's Seventh Annual Statewide Historic Preservation Conference, SC Department of Archives and History, Columbia, SC, 2006

- Instructor, Cemetery Preservation: Making Good Choices Workshop, Save Oklahoma's Cemeteries, Muskogee, OK.
- Invited Speaker, Cemetery Preservation Workshop, SC Genealogical Society Annual Meeting, Walterboro, SC, 2004
- Instructor, Cemetery Preservation: Making Good Choices Workshop, Bannack State Park, Bannack, MT, 2003
- Invited Speaker, Preservation of African American Cemeteries Conference, Helena, AK, 2003
- Invited Speaker, Cemetery Conservation Techniques, Historic Cemetery Preservation Workshop, Maryland Historical Trust, Annapolis, MD, 2000

Publications

- Articles in *Turf* and *Landscape Superintendent*
- Quarterly column, "Conservation Talk," in the Association of Gravestone Studies *Newsletter*

Debi Hacker

Education

- B.A., Tulane University
- Certificate, Midlands Technical College, Basic Horticulture
- Certificate, Midlands Technical College, Landscape Maintenance
- Certificate, Midlands Technical College, Landscape Design

Professional Experience

- Conservator, The Charleston Museum, Charleston, SC
- Conservation Administrator, South Carolina State Museum
- Conservator, Chicora Foundation, Inc.

Specialized Education

- Treatment of Bronze Sculpture, Brookgreen Gardens, Georgetown, SC
- NCPTT Cemetery Monument Preservation Workshop, Omaha, NE
- 4-Hr. Jahn class
- Field and Laboratory Methods in Location, Recovery, and Analysis of Human Remains in a Rural Setting, Forensic Anthropology Division, Mercyhurst College
- Federal Bureau of Investigation, Forensic Entomology Course
- Sokkia Professional Mapping Class

Professional Memberships

- American Institute for Conservation of Historic and Artistic Works
- Southeast Regional Conservation Association
- National Trust for Historic Preservation
- International Association for Identification, SC Chapter
- PLANT
- International Society of Arboriculture
- SC Nursery and Landscape Association

Presenter at Recent Workshops and Seminars

- Instructor, Cemetery Maintenance Workshop, National Preservation Institute, Jacksonville, Florida; Washington, D.C.; Charleston, West Virginia; 2009, 2008, 2007, 2006
- Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Jacksonville, Florida; Washington, D.C., Las Vegas, New Mexico; Charleston, West Virginia, 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2001

- Invited Speaker, National Cemetery Preservation Summit, Nashville, TN, 2009
- Instructor, Cemetery Preservation: Making Good Choices Workshop, Save Oklahoma's Cemeteries, Muskogee, OK.
- Invited Speaker, Eternal Places Conference, Washington, GA, 2008, 2007
- Invited Speaker, Cemetery Preservation Workshop, SC Genealogical Society Annual Meeting, Walterboro, SC, 2004
- Instructor, Cemetery Preservation: Making Good Choices Workshop, Bannack State Park, Bannack, MT, 2003

Publications

- Articles in *Turf* and *Landscape Superintendent*
- *Iconography of Death*, Chicora Foundation, Inc.

Nicole Southerland

Education

- B.A., University of Georgia, Athens

Professional Experience

- Chicora Foundation, Inc.
- Geology and marble analysis as BA Honor's Thesis

Professional Memberships

- Society for Historical Archaeology

Specialized Education

- Authorized Jahn Installer
- Edison Coatings Workshop
- History Masonry – College of the Building Arts, Charleston, SC
- NCPTT Advanced Cemetery Monument Preservation Workshop, Natchitoches, LA
- Digital Photography

APPENDIX 2 – MORTAR ANALYSES

The mortar analyses were conducted by Chicora Foundation at our Columbia, SC laboratory. All four samples were examined using what is known as "gas collection," meaning the technique presented by Jedrzejewska (1960). For a review of this technique, and the larger issues surrounding mortar analysis, the reader may wish to review Schnabel (1993). In general the presence of either significant levels of soluble complex silicates or fines indicates that the mixes were slightly to moderately hydraulic. Those samples containing <10% solubles or fines are identified as non-hydraulic. Those samples with >10% and especially >20% are identified as moderately hydraulic and possibly natural cements. The two repointing samples are suggestive of Portland cement mortars. The two original mortars, while they contained no visible lime inclusions, probably contained large amounts of lime. Given the relatively high levels of fines, these may represent NHL mortars.

Recently Schnabel (2009) questions the usefulness of this approach (as well as even simple acid digestion). Schnabel comments, "Advances in the field of mortar analysis have unequivocally demonstrated that the simple acid-digestion methods proposed by E. Blaine Cliver and H. Jedrzejewska are not suited to the general analysis of historic mortar. These methods are limited, in that they have no utility for mortars with acid-soluble aggregate, and Cliver's method is fundamentally flawed in the conclusions that can be drawn regarding original binder composition." We do not dispute her findings and offer these results for cautious interpretation. They are certainly useful for replicating the appearance, color, and texture of original mortars, if not fully comprehending the nature of that mortar.

Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Repointing Mortar, S.V. Arnold Tomb **Sample No.**: 2010-01

Date: 8/12/10 **Origin of Sample**: Elm Street Cemetery, Braintree, MA

Visual Description of sample (color, texture, hardness, inclusions, etc.):
Light brownish gray (10YR6/2) mortar. Very hard. Many inclusions of various sizes easily visible to the naked eye. Rough texture with some of the large inclusions sittin on the surface, suggesting that mortar has eroded from around the inclusions.

Mortar Analysis

Original weight of powdered sample (in g)	5.60
Weight of filter paper (in g)	0.89
Weight of filter paper + dry fines (in g)	1.40
Weight dry fines (in g)	0.51
Weight of dry sand (in g)	3.62
Gas Displacement (in ml)	0.10
Weight of lime (in g)	0.00
% of sand	64.64
% of fines	9.11
% of lime	0.01
% of acid solubles	26.24

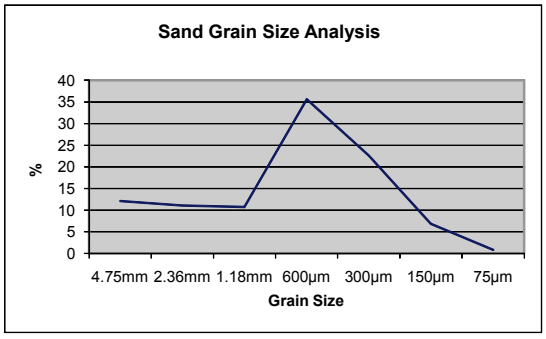
Observations (dissolution of binder, color of liquid, reaction):
Immediate aggressive reaction turning the liquid yellow, turning less aggressive and lasting nearly 15 minutes.

Characterization of Sand:

Microscopic Examination:
Subrounded to angular; mostly quartzite, some darker stone, including black inclusions. Some mica.

		wt (gm)	%
wt./% finer than	4.75mm	0.00	0
	2.36mm	0.44	12.1547
	1.18mm	0.40	11.04972
	600µm	0.39	10.77348
	300µm	1.29	35.63536
	150µm	0.82	22.65193
	75µm	0.25	6.906077
	53µm	0.03	0.828729
	38µm	0.00	0
Total sand weight		3.62	

Munsell Color(s) of Sand: light brownish gray (10YR6/2)



Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Repointing Mortar, E. Thayer Tomb

Sample No.: 2010-02

Date: 8/12/10

Origin of Sample: Elm Street Cemetery, Braintree, MA

Visual Description of sample (color, texture, hardness, inclusions, etc.):
Gray (2.5YR5/1) with the appearance of a Portland cement. Moderate amounts of inclusions with few large items (largest was about 7.25 mm in diameter). Semi-rough texture with some large inclusions sitting on the surface. Easily broken, but not friable.

Mortar Analysis

Original weight of powdered sample (in g)	10.00
Weight of filter paper (in g)	0.89
Weight of filter paper + dry fines (in g)	2.12
Weight dry fines (in g)	1.23
Weight of dry sand (in g)	6.71
Gas Displacement (in ml)	0.13
Weight of lime (in g)	0.00
% of sand	67.10
% of fines	12.30
% of lime	0.01
% of acid solubles	20.59

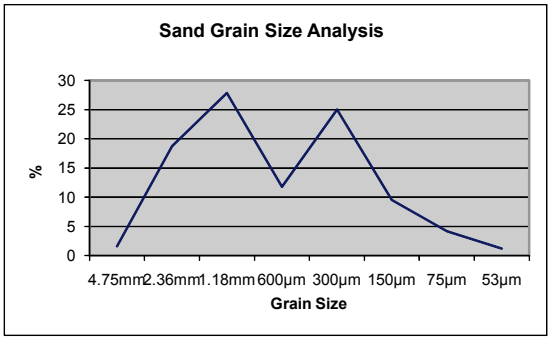
Observations (dissolution of binder, color of liquid, reaction):
Not immediately aggressive; liquid turned a dark green. Reaction relatively short-lived with isolated bubbles for an additional 10 minutes.

Characterization of Sand:

Microscopic Examination:
Subrounded to angular; quartz, quartzite, mica.

		wt (gm)	%
wt./% finer than	4.75mm	0.11	1.639344
	2.36mm	1.26	18.77794
	1.18mm	1.87	27.86885
	600µm	0.79	11.77347
	300µm	1.68	25.03726
	150µm	0.64	9.538003
	75µm	0.28	4.172876
	53µm	0.08	1.19225
	38µm	0.00	0
Total sand weight		6.71	

Munsell Color(s) of Sand: gray (2.5YR5/1)



Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Original Mortar, S.V. Arnold Tomb **Sample No.**: 2010-03

Date: 8/12/10 **Origin of Sample**: Elm Street Cemetery, Braintree, MA

Visual Description of sample (color, texture, hardness, inclusions, etc.):
Pale brown (10YR6/3); hard, but somewhat friable on interior. Few inclusions obvious with most being very small. Moderately smooth texture, has a somewhat chalky feel.

Mortar Analysis

Original weight of powdered sample (in g)	7.29
Weight of filter paper (in g)	0.90
Weight of filter paper + dry fines (in g)	2.26
Weight dry fines (in g)	1.36
Weight of dry sand (in g)	3.97
Gas Displacement (in ml)	178.00
Weight of lime (in g)	0.80
% of sand	54.46
% of fines	18.66
% of lime	10.97
% of acid solubles	15.92

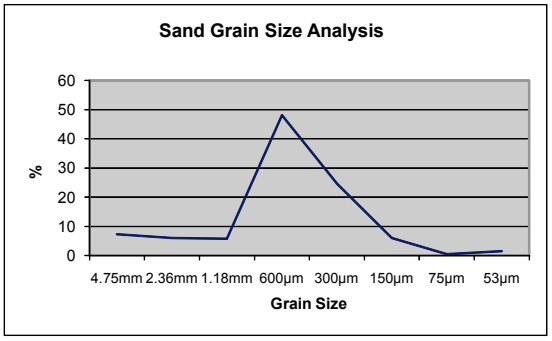
Observations (dissolution of binder, color of liquid, reaction):
Immediate, very aggressive reaction; turned liquid dark yellow with much gas emitted immediately. Reaction stayed aggressive for several minutes; less aggressive reaction continued for 20 minutes.

Characterization of Sand:

Microscopic Examination:
Subrounded to angular; quartzite, unknown metavolcanic, quartz.

		wt (gm)	%
wt./% finer than	4.75mm	0.00	0
	2.36mm	0.29	7.304786
	1.18mm	0.24	6.04534
	600µm	0.23	5.793451
	300µm	1.91	48.11083
	150µm	0.98	24.68514
	75µm	0.24	6.04534
	53µm	0.02	0.503778
	38µm	0.06	1.511335
Total sand weight		3.97	

Munsell Color(s) of Sand: pale brown (10YR6/3



Chicora Foundation Gas Displacement Mortar Analysis Data Sheet

Name: Original Mortar, Granite wall, east side

Sample No.: 2010-04

Date: 8/12/10

Origin of Sample: Elm Street Cemetery, Braintree, MA

Visual Description of sample (color, texture, hardness, inclusions, etc.):
Very pale brown (10YR8/2); easily broken, very friable. Few visible inclusions, those present are very small. Slightly rough texture

Mortar Analysis

Original weight of powdered sample (in g)	6.33
Weight of filter paper (in g)	0.89
Weight of filter paper + dry fines (in g)	2.19
Weight dry fines (in g)	1.30
Weight of dry sand (in g)	4.59
Gas Displacement (in ml)	104.00
Weight of lime (in g)	0.47
% of sand	72.51
% of fines	20.54
% of lime	7.38
% of acid solubles	-0.43

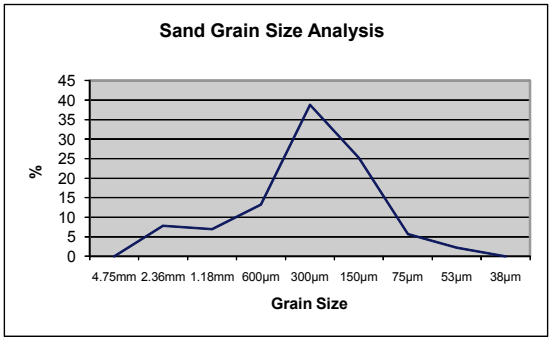
Observations (dissolution of binder, color of liquid, reaction):
Immediate, but short-lived aggressive reaction turning the liquid yellow; subtle reaction continued for about 2 minutes.

Characterization of Sand:

Microscopic Examination:
Subrounded to angular; quartzite, unknown metavolcanic, quartz.

		wt (gm)	%
wt./% finer than	4.75mm	0.00	0
	2.36mm	0.36	7.843137
	1.18mm	0.32	6.971678
	600µm	0.61	13.28976
	300µm	1.78	38.77996
	150µm	1.16	25.27233
	75µm	0.26	5.664488
	53µm	0.10	2.178649
	38µm	0.00	0
Total sand weight		4.59	

Munsell Color(s) of Sand: very pale brown (10YR8/2)



APPENDIX 3 – TREATMENT PROPOSALS

The list below provides information on those stones identified as requiring conservation treatments. Identified by section and stone the list includes the name, the priority of the treatment, and the estimated cost.

Section	Stone	Name	Priority	Cost
1	03	Arnold, B. Lester	1	900
1	04	Arnold, John G.W.	3	700
1	16	Sherman, Eliza M.	2	200
1	17	Bradshaw, Sarah	2	500
1	20	Niles, Nacy Jane	1	1,100
1	21	Niles, Oliver H.P.	2	600
1	22	Niles, Florence Storrs	1	1,300
1	23	Robinson, Elizabeth	2	900
1	24	Perry, Harriet & Lemuel	1	900
1	26	Wales, Nathan & Sarah	1	1,200
1	27	Allen, Elizabeth Denton	1	1,200
1	29	Mayhew, Mary et al.	3	150
1	Fence	Arnold Plot	2	8,000
2	01	Vinton Tomb	2	8,500
2	03	Penniman, Nathaniel & Elizabeth	3	100
2	08	Waymouth, Olive	1	600
2	09	Waymouth, Harriet	1	900
2	10	Waymouth, Robert	1	900
2	11	Cushing, Gardner	1	1,000
2	Fence	Vinton	1	5,000
3	03	Minchin, John H.	1	1,200
3	04	Penniman, Elizabeth	1	1,000
3	05	Southworth, Edward D.	2	1,200
3	08	Baby	1	900
3	17	White, Calvin	1	900
3	18	Hollis, Carlye	1	900
3	20	Nudd, Sarah H.	1	1,000
3	22	Hollis, Elizabeth	1	1,000
3	23	Holbrook, Caroline E.	1	1,100
3	24	Holbrook, William et al.	2	1,200
4	02	Hunt, Moses	1	900
4	04	Nottage, Josiah	1	1,200
4	06plot	Thayer coping	3	500
4	06	Thayer, Lillie	2	100
4	07	Hayden, Abigail	1	1,100
4	09	Wild, Abigail Allen	1	900
4	10	Hayden, Robert	1	900
4	12	Hayden, Alice Marion	2	500
4	13	Hunt, Prudence	2	500
4	14	Dow, Sarrah E.	1	1,000
4	15	Hunt, Minott	1	900
4	17	Mosman, Marion, et al.	1	1,000
4	17fs	Mosman, Marion, et al.	2	100
4	21	Coburn, Claribel P.	2	100
4	22	Howe, Susan	1	1,200
4	25	Holbrook, Ruthy	1	900
4	26	Holbrook, James	1	900
4	27	Holbrook, Eliza Stone	2	900
4	29	Arnold, unknown	3	100
4	30	White, Caleb	3	500
4	32	unknown, Lydia	2	900
4	34	Holbrook, Hannah S.	1	1,400
4	36	Thayer, Elizabeth D.	2	700
4	38	Thayer, Joseph V.	3	100

Section	Stone	Name	Priority	Cost
4	39	Thayer, Nathaniel P.	3	100
4	42	Stetson, Franklin	3	100
4	44	Dickerman, Lydia	1	1,000
4	46	Dickerman, Charles C.	1	400
4	49	Thayer, George W.	1	1,000
4	50	Hollis, John	1	1,000
5	Fence	French, Charles	1	3,800
5	01	Bowditch, Ebeneezer	2	900
5	03	Bowditch, Susan S.	2	900
5	04	Bowditch, Lizzie H.	2	900
5	05	Bowditch, Ann	2	900
5	06	Bowditch, Charles F.	2	900
5	07	Bowditch, Sarah	2	1,000
5	08	French, Jane Bates	1	1,000
5	09	French, Sarah	1	1,000
5	10	French, Charles	1	1,000
5	13	French, Charles Edward	2	900
5	14	Berry, Sarah	1	1,300
5	15	French, Caroline E.	1	1,300
5	16	French, Catherine L.	1	1,000
5	17	French, Charles	1	1,100
5	18	French, William Henry	2	500
6	01	Arnold, S.V. tomb	2	14,000
6	03	Delano, Mansfield H.	2	900
6	04	Doble, Charles Otis	1	1,000
6	05	Doble, Elvira	1	600
6	06	Doble, Henry P.	1	1,400
6	09	Penniman, Lucy Mary	2	100
6	11	Penniman, Abijah N.	1	1,000
6	12	Penniman, Abijah	1	300
6	13	Penniman, Lucy	1	1,200
6	22	Hobart, Mary P. & Charles	2	400
6	23	Hobart, John & Mehitable & Susan	2	100
6	30	Hobart, Elisha	1	800
6	39	French, S. & J. and C. Hollis	1	800
B	04fs	C., G.C.	2	150
B	05	T., E.	2	200
B	11	Capen, Nathaniel	1	100
B	12	Thayer, Sarah	1	400
B	13	Holbrook, Mary	4	nc
B	14	Copeland, Daniel	2	100
B	15	Copeland, Lavina	2	100
B	16	Hayden, Sarah	2	300
B	17	Penniman, William	1	900
B	18	Penniman, Sarah	4	nc
B	18fs	Penniman, Sarah	2	100
B	19	Penniman, Ruth	1	900
B	23	Arnold, Moses	1	600
B	23fs	Arnold, Moses	2	100
B	25fs	Domett, George	2	100
B	28	French, Lucy	1	900
B	29	Gorham, Hannah A.	2	300
B	29fs	Gorham, Hannah A.	2	150
B	31	Loring, Mary T.	2	75

Section	Stone	Name	Priority	Cost
B	33fs	Nason, Charles S.	2	100
B	36	Penniman, Barzillai	2	100
C	01	Capen, Deborah	4	nc
C	01fs	Capen, Deborah	2	100
C	02	Capen, Nathaniel	1	800
C	03fs	Jones, Ephraim	1	900
C	04fs	Jones, Mary	2	100
C	05fs	Holes, John	2	100
C	06	Holles, Hannah	2	400
C	06fs	Holles, Hannah	2	100
C	07	Holles, Benjamin	1	600
C	08	UID	1	1,000
C	09	Faxon, Charles, Jr.	3	150
C	11	Faxon, Sargent	3	150
D	01	Allin, Abigail	3	150
D	01fs	Allin, Abigail	2	500
D	04	Vinton, Hepzibah	1	250
D	04fs	Vinton, Hepzibah	2	100
D	05	Vinton, John	5	nc
D	06fs	Hiscock, Elizabeth	2	100
E	04	Allen, Samuel, Sr.	1	1,200
E	05	Allen, Benjamin	1	400
E	10	Allen, Alice	2	500
E	11	Allen, Benjamin & Priscilla	2	500
E	14	Allen, Alice & Abigail & Jerusha & Rhoda	1	700
E	15	Penniman, Amasa & Eunice	1	1,000
E	21	Tenney, Gersham	2	400
E	22fs	Denton, Jacob & Elizabeth	2	100
E	24	Denton, Mary	4	nc
E	26	Sampson, Joshua & Lucy	1	600
E	28	Sampson, Rachel	1	800
F	01	Penniman, Atherton Thayer	2	150
F	01fs	Penniman, Atherton Thayer	2	150
F	06fs	Penniman, Enoch	2	100
F	07	Pennyman, James	2	500
F	08	Penniman, James	2	100
F	10fs	Thayer, Sussanah	1	500
F	11	Thayer, Ruth	2	150
F	11fs	Thayer, Ruth	2	100
F	12	Thayer, Ebeneezer	2	600
F	13fs	Mekuset, Daniel	2	100
F	14	French, Silence	5	nc
F	15	Thayer, Eleanora	1	400
F	16	French, Josiah	1	400
F	18	Penniman, children	2	600
F	19	Wales, Nathaniel	1	500
F	20	Wales, Mary	1	500
G	01fs	Foye, Harriett Elizabeth	2	100
G	02	Guild, Francis Eugene	2	100
G	04fs	Allen, Abigail & Abijah & John	2	100
H	02	Allen, William	2	150
H	02fs	Allen, William	2	100
H	03	Allen, Sarah F.	2	500
H	04	Allen, Benjamin	1	700

Section	Stone	Name	Priority	Cost
H	06	Curtis, Rebecca	1	800
H	06fs	Curtis, Rebecca	2	100
H	07fs	Thayer, Rebecca	2	100
H	08	Thayer, Nathaniel	1	800
H	10	Sullivan, Nancy	1	1,000
H	11	Gilman, Peter S.	2	900
I	01	French, Moses	3	100
I	02fs	French, Moses	2	300
I	03	French, Elizabeth	1	100
I	05	Thayer, Lydia	3	150
I	06fs	Arnold, Lydia	2	450
I	07	Thayer, Esther	1	500
I	07fs	Thayer, Esther	2	500
I	08fs	French, Elizabeth	2	100
I	09fs	Arnold, Jonathan	2	100
I	10fs	Thayer, Lucretia D.	2	100
I	11fs	Thayer, Elisha	2	100
I	12fs	Thayer, Elisha	2	100
I	13fs	Cochran, Linus	2	100
I	14fs	Thayer, Obediah	2	100
I	15	Thayer, Nathanial	1	1,100
I	16	Thayer, Deliverance	1	1,400
J	02fs	Hayward, Silance	2	100
J	06	Hayward, Caleb	2	500
J	07fs	Hayward, David Pearson	2	100
J	08fs	Hayward, Lois	2	100
J	09	White, Augustus	1	600
J	09fs	White, Augustus	2	150
J	10	Heard, Ruth	1	400
J	13fs	Thayer, James	2	100
J	18	Dickerman, David	2	150
J	19	Williams, Sarah G.	2	100
J	20	Williams, Sarah	1	200
K	02fs	Wild, Ruth	2	100
K	03fs	Wild, Silas	2	100
K	05	unknown	2	1,000
L	03fs	French, Benjamin	2	100
L	04	French, Lewis	3	400
L	05	Jarvis, John	1	400
L	05fs	Jarvis, John	2	150
L	06	Jarvis, Mary R.	2	300
L	06fs	Jarvis, Mary R.	2	200
L	07fs	French, Lewis	2	100
L	08fs	French, Julia	2	200
L	11	Vickery, Eliza	1	1,200
M	03	Doble, Susanna	1	800
M	04fs	White, Thomas	2	100
M	05fs	Thayer, Abigail	2	100
M	06	French, Samuel	2	600
M	13	Plaisted, Charlotte	2	800
M	14	Storrs, Charles B.	2	800
N	03	White, Lydia	1	1,000
N	03fs	White, Lydia	2	100
N	04	Doble, Susanah	2	700

Section	Stone	Name	Priority	Cost
N	05	White, Samuel	1	700
N	05fs	White, Samuel	1	400
N	06fs	White, Samuel	2	100
N	07	White, Ebeneezer & Lydia	1	700
N	07fs	White, Ebeneezer & Lydia	2	100
N	08fs	White, William	2	100
O	01fs	Faxon, Richard	2	500
O	02fs	Faxon, Richard	2	100
O	03	Faxon, Anna	1	700
O	04	Faxon, Relief	2	150
O	06	Willis, Josephine	1	200
O	07	Niles, Elizabeth	1	9,500
O	08	Vinton, Hannah	1	900
O	11	Vinton, Thomas	2	1,200
O	14	Veazie, Lemuel Storrs	2	200
O	15	Veazie, Rachel	1	800
P	01	Clark, Peter	1	500
P	02	Wales, Mary	1	900
P	04	Niles, Ann	1	800
P	05	Niles, Samuel	2	900
P	05fs	Niles, Samuel	2	100
P	06	Weld, Ezra	1	1,000
P	06fs	Weld, Ezra	1	250
Q	02fs	Weld, Anna	2	100
Q	03	W., H.	1	1,100
Q	03fs	W., H.	2	150
Q	05	H., M.	5	nc
Q	05fs	H., M.	2	300
Q	07	Thayer, Lydia	2	700
Q	07fs	Thayer, Lydia	2	150
Q	11	Thayer, James	1	1,100
Q	13	Thayer, Thomas	3	150
R	04	Thayer, Nathaniel	3	500
R	04fs	Thayer, Nathaniel	2	100
R	06	Veazie, Mary	2	900
R	07	Veazie, Susan	1	1,400
R	08	Veazie, Benjamin	1	1,100
R	09	Veazie, Mary	1	1,400
R	10	Veazie, Nancy	1	600
R	11	Thayer, Elisha & Susanna Veazie	1	1,400
R	13fs	unknown	1	500
R	14	Veazie, Mary	1	1,200
R	15	Veazie, Phebe	2	100
R	16	unknown	1	500
S	01	Thayer, E tomb	2	15,000

APPENDIX 4 – STONES IN THE CEMETERY

Buried away at http://www.thayerfamilies.com/phocadownload/Elm-Street-Cemetery-Braintree-MA-FINAL.pdf is a regrettably obscure list of stones in the Elm Street Cemetery. The web site indicates that the list was first prepared in 1904 by Edward E. Jackson of Braintree and was updated in 1941 by Waldo Chamberlain Sprague of Wollaston, Massachusetts. In 2001 the list was photocopied by then director of the Braintree Historical Society, Brian A. Kolner and it was apparently passed on to Rodney Lee Thayer of Yokosuka, Japan who, representing the Thayer Families Association, formatted the list and published it on-line.

We have taken this original list and updated it to reflect our 2010 assessment. The stones have been numbered and each stone was checked to determine if it was still present. The list includes stones that had been found missing in 1941 and now includes additional stones missing as of 2010. The loss of stones from the cemetery is to be much regretted and indicates the need for the proactive preservation recommendations included in this study. Stone numbers shown in red are those that we have determined to require conservation treatment – these too indicate the need for immediate action on the part of the Town.

The first list is sorted by section and is of primary use to periodically check the stones present in the cemetery. The second list is sorted by last name and is more useful to identify the location of a particular stone.

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Arnold	Rosette	E.	1-01	granite		Arnold Plot	1815	1898
Arnold	Sumner	W.	1-01	granite		Arnold Plot	1816	1888
Arnold	Benjamin	V.	1-02	granite		Arnold Plot		24 Jul 1886
Arnold	Mary	H.	1-02	granite		Arnold Plot		29 Dec 1906
Arnold	B.	Lester	1-03	marble		Arnold Plot		06 Jan 1871
Arnold	William	D.	1-03	marble		Arnold Plot		29 Sep 1872
Arnold	John	G. W.	1-04	granite		Arnold Plot	25 Aug 1847	19 Apr 1885
Arnold	B.	F.	1-05	marble		Arnold Plot		20 Jan 1877
Arnold	Eliza	S.	1-05	marble		Arnold Plot		11 Sep 1843
Arnold	Elizabeth	F.	1-05	marble		Arnold Plot	1810	1891
Arnold	Sarah	C. H.	1-05	marble		Arnold Plot		23 Dec 1833
Hayden	Mehitable		1-05	marble		Arnold Plot		08 Nov 1866
Hayden	Nancy	W.	1-05	marble		Arnold Plot	1817	1893
Hayden	Thomas	A.	1-05	marble		Arnold Plot		07 Feb 1869
Hayden	Samuel		1-06	marble		Saml. Hayden Plot		12 Mar 1852
Hayden	Silence		1-07	marble		Saml. Hayden Plot		27 Aug 1868
Hayden	Edward		1-08	marble		Saml. Hayden Plot		02 Feb 1857
Hayden	Harriet	M.	1-09	marble		Saml. Hayden Plot		26 Aug 1832
Hayden	Samuel		1-10	marble		Saml. Hayden Plot	1804	1885
Sawyer	Caroline	F.	1-11	granite		C.H. Sawyer Plot	1837	1906
Sawyer	Laura	A.	1-11	granite		C.H. Sawyer Plot	1801	1859
Sawyer	Sarah	H.	1-11	granite		C.H. Sawyer Plot	1828	1898
Sawyer	William	H.	1-11	granite		C.H. Sawyer Plot	1811	1889
Williams	Della		1-11	granite		C.H. Sawyer Plot		1952
Gage	Mary	Denton	1-12	marble		Denton Plot		20 Apr 1903
Allen	Elizabeth	Denton	1-13	marble		Allen Plot	26 Aug 1798	30 Dec 1867
Allen	Richard	H.	1-13	marble		Allen Plot	1798	1884
Sherman	Phebe	V.	1-14	granite		Sherman Plot		1888
Sherman	William	M.	1-14	granite		Sherman Plot		1887
Sherman	Rufus		1-15	marble		Sherman Plot		1877
Sherman	Eliza	M.	1-16	marble		Sherman Plot		1875
Bradshaw	Sarah		1-17	marble		Sherman Plot		
French	Sarah	E.	1-18	marble		Sherman Plot		26 Nov 1870
Dinsmore	Susan	M.	1-19	granite		Sherman Plot	1835	1900
Niles	Nancy	Jane	1-20	marble		Niles Plot		23 Apr 1864
Niles	Oliver	H. Perry	1-21	marble		Niles Plot	1819	1888
Niles	Florence	Storrs	1-22	marble		Niles Plot		18 Nov 1866
Robinson	Elizabeth		1-23	marble		Wales Plot	Wales Plot	1897
Perry	Harriet	N. Curtis	1-24	marble		Wales Plot		23 Nov 1891
Perry	Lemuel	B.	1-24	marble		Wales Plot		04 Mar 1865
Perkins	Ruth	Thayer	1-25	granite		Wales Plot	1826	1903
Wales	Nathaniel, Jr.		1-26	sandstone		Wales Plot	1779	1851
Wales	Sarah		1-26	sandstone		Wales Plot	1787	1871
Wales	Benjamin	Carr	1-27	granite		Wales Plot	1822	1893
Wales	Josephine	E.	1-27	granite		Wales Plot	1837	1915
Wales	J.	W.	1-28	granite		Wales Plot	1812	1889
Mayhew	John	Henry	1-29	granite	2 granite	Mayhew Plot	1879	08 Aug 1880
Mayhew	Mary Rosemond	Minchin	1-29	granite		Mayhew Plot	1851	1927
Mayhew	Will	Watson	1-29	granite		Mayhew Plot	1857	1912
Kincaid	Frederick		1-30	granite		Kincaid Plot		
Kincaid	Hattie		1-30	granite		Kincaid Plot		
Kincaid	James		1-30	granite		Kincaid Plot	1776	23 Dec 1853
Kincaid	Sarah	Allen	1-30	granite		Kincaid Plot	1831	1911
Kincaid	Thomas		1-30	granite		Kincaid Plot	1821	08 Jun 1854
Kincaid	William		1-30	granite		Kincaid Plot	1830	1904
Kincaid	William		1-30	granite		Kincaid Plot		
Alden	William	Vinton	2-01	marble plaque		Vinton Tomb		22 Oct 1862
Vinton	Betsey	Snow	2-01	marble plaque		Vinton Tomb		09 Aug 1849
Vinton	Charlotte	W.	2-01	marble plaque		Vinton Tomb		06 Aug 1842

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Vinton	Edward	Payson	2-01	marble plaque		Vinton Tomb		13 Oct 1861
Vinton	Josiah		2-01	marble plaque		Vinton Tomb		17 Oct 1857
Vinton	Phebe	W. Clisby	2-01	marble plaque		Vinton Tomb		23 Feb 1855
Penniman	Eliza	A.	2-02	granite		N. Penniman Plot	1827	1910
Penniman	Thomas	E.	2-02	granite		N. Penniman Plot	1824	1900
Penniman	Elizabeth	A.	2-03	marble		N. Penniman Plot		08 Apr 1878
Penniman	Nathaniel		2-03	marble		N. Penniman Plot		06 Jan 1836
Fisher	Ann		2-04	marble		E. Fisher Plot		27 Nov 1877
Fisher	Enoch	H.	2-05	marble		E. Fisher Plot		16 Nov 1876
Fisher	Ann	Maria	2-06	slate		E. Fisher Plot		29 Oct 1843
Waymouth	Edna		2-07	marble		Waymouth Plot		
Waymouth	Gertie		2-07	marble		Waymouth Plot		
Waymouth	Olive	T.	2-08	marble	marble	Waymouth Plot		17 Mar 1842
Waymouth	Harriet	H.	2-09	marble	marble	Waymouth Plot		08 Mar 1893
Waymouth	Robert		2-10	granite	marble	Waymouth Plot	08 Sep 1818	01 Jun 1898
Gardner	Cushing		2-11	marble		DISPLACED		02 Nov 1850
Penniman	Asa		3-01	marble		Minchin Plot		15 Jun 1869
Howe	Clarissa	N.	3-02	granite		Minchin Plot	1835	1923
Minchin	John	H.	3-03	marble		Minchin Plot		25 Dec 1875
Penniman	Elizabeth	H.	3-04	marble	marble	Minchin Plot		13 Jan 1872
Southworth	Edward	D.	3-05	marble		Minchin Plot		13 Aug 1867
Minchin	Charles	H.	3-06	slate	slate	Minchin Plot		28 Sep 1851
Minchin	Martin	Van	3-07	slate	slate	Minchin Plot		10 Sep 1838
	Baby		3-08	marble		Minchin Plot		
Bunker	Ella	S.	3-09	granite		Vinton Plot	1846	1919
Vinton	Henry	B.	3-09	granite		Vinton Plot	1851	1916
Vinton	Henry	R. S.	3-09	granite		Vinton Plot	12 Aug 1885	31 Aug 1885
Vinton	Mary	E.	3-09	granite		Vinton Plot	1850	1907
Vinton	Sophia	Nash	3-09	granite		Vinton Plot	16 Feb 1816	20 Sep 1870
Vinton	Thomas	B.	3-09	granite		Vinton Plot	09 Dec 1818	03 Sep 1893
Kendall	William		3-10	marble		Bowditch Plot		26 Apr 1854
Kendall	Mary		3-11	marble		Bowditch Plot		23 Dec 1853
Bowditch	Sally		3-12	slate		Bowditch Plot	25 Jul 1779	24 Sep 1848
Bowditch	Elizabeth		3-13	slate		Bowditch Plot	07 Feb 1772	04 Dec 1847
Thayer	Mary	B.	3-14	marble		Bowditch Plot		02 Dec 1872
Ryan	Benjamin	D.	3-15	marble	marble	Ryan Plot		31 Dec 1868
Ryan	Daniel	H.	3-15	marble		Ryan Plot		18 Feb 1867
Ryan	Sarah	Munroe	3-15	marble		Ryan Plot		16 Mar 1854
Blunt	David	Thayer	3-16	granite		E.S. Thayer Plot	1909	1986
Blunt	Gladys	Ross	3-16	granite		E.S. Thayer Plot	1913	1995
Blunt	Sophie	Thayer	3-16	granite		E.S. Thayer Plot	1875	1962
Thayer	Elisha	Strong	3-16	granite		E.S. Thayer Plot	19 Jun 1817	13 May 1900
Thayer	Henry	Strong	3-16	granite		E.S. Thayer Plot	1840	1905
Thayer	Indiana	Gifford	3-16	granite		E.S. Thayer Plot	1843	1935
Thayer	Maria	White	3-16	granite		Thayer/White Plot	31 July 1821	06 Dec 1893
Thayer	Marie	Ann	3-16	granite		Thayer/White Plot	1872	1963
White	Calvin		3-17	marble		Thayer/White Plot		26 Nov 1857
Hollis	Carlye		3-18	granite		Hollis Plot		
Hollis	Joseph		3-19	marble		Hollis Plot		11 Feb 1867
Hollis	Sally		3-19	marble		Hollis Plot		18 Nov 1866
Nudd	Sarah	H.	3-20	marble		Hollis Plot	10 Nov 1819	28 Nov 1846
Hollis	Joseph	A.	3-21	granite		Hollis Plot	1822	1881
Hollis	Laura	A.	3-21	granite		Hollis Plot	1832	1865
Hollis	Elizabeth		3-22	marble		Hollis Plot		13 Dec 1851
Holbrook	Caroline	E.	3-23	marble	marble	Holbrook Plot		02 Aug 1846
Hayward	Julia	F.	3-24	marble		Holbrook Plot		16 Jun 1909
Holbrook	Elisha	S.	3-24	marble		Holbrook Plot		20 Aug 1861
Holbrook	Henry	J.	3-24	marble		Holbrook Plot		13 Jul 1896
Holbrook	Myron	E.	3-24	marble		Holbrook Plot		01 Oct 1866

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Holbrook	Rhoda		3-24	marble		Holbrook Plot		15 Jan 1868
Holbrook	William		3-24	marble		Holbrook Plot		03 Jan 1871
Holbrook	William, Jr.		3-24	marble		Holbrook Plot		25 Jul 1872
Daily	E.	Warner	4-01	granite		M. Hunt Plot		29 Sep 1878
Daily	Susan	H.	4-01	granite		M. Hunt Plot		16 Nov 1875
Hunt	Josiah	H.	4-02	marble		M. Hunt Plot		13 Mar 1865
Hunt	Josiah		4-02	marble		M. Hunt Plot		25 Dec 1855
Hunt	Moses		4-02	marble		M. Hunt Plot		26 Jan 1868
Jennings	Susan	Ann	4-03	granite		M. Hunt Plot	1831	1905
Jennings	Harriet	T.	4-03	granite		M. Hunt Plot		1946
Jennings	Samuel	W.	4-03	granite		M. Hunt Plot	1827	1895
Jennings	William	L.	4-03	granite		M. Hunt Plot	1865	1902
Nottage	Josiah		4-04	marble				14 Mar 1846
Arnold	Ann	Josephine	4-05	granite		E.F.E. Arnold Plot	1836	1837
Arnold	Joseph	Allen	4-05	granite		E.F.E. Arnold Plot	1811	1886
Arnold	Joseph	Allen	4-05	granite		E.F.E. Arnold Plot	1841	1842
Arnold	Louisa	B. LEEDS	4-05	granite		E.F.E. Arnold Plot	1835	1908
Arnold	Mary	Allen	4-05	granite		E.F.E. Arnold Plot	1786	1857
Arnold	Ralph		4-05	granite		E.F.E. Arnold Plot	1783	1851
Arnold	Sarah	Catherine	4-05	granite		E.F.E. Arnold Plot	1834	1853
Arnold	Sarah	Lewis	4-05	granite		E.F.E. Arnold Plot	1864	1917
Arnold	Sarah	W. French	4-05	granite		E.F.E. Arnold Plot	1814	1846
Adams	Julia		4-06	granite		E.N.Thayer Plot	1854	1919
Soper	Mary	F.	4-06	granite		E.N.Thayer Plot	1788	1859
Thayer	Ebenezer	F.	4-06	granite		E.N.Thayer Plot	1784	1824
Thayer	Ebenezer	F. E.	4-06	granite		E.N.Thayer Plot	1815	1894
Thayer	Elizabeth	S.	4-06	granite		E.N.Thayer Plot	1827	1874
Thayer	Frank	Storrs	4-06	granite		E.N.Thayer Plot	1851	1927
Thayer	Lucinda	A.	4-06	granite		E.F.E. Thayer Plot	1784	1822
Thayer	Rachel	R.	4-06	granite		E.F.E. Thayer Plot	1812	1902
Thayer	Sarah	S. S.	4-06	granite		E.F.E. Thayer Plot	1818	1896
Thayer	Stephen	S.	4-06	granite		E.F.E. Thayer Plot	1822	1867
Wright	Lillie	T.	4-06	granite		E.N.Thayer Plot	1845	1864
Wright	Lucinda	A.	4-06	granite		E.N.Thayer Plot	1817	1845
Thayer	Our Lillie		4-06A	marble		E.N.Thayer Plot		
Hayden	Abigail		4-07	marble	marble	O. Hayden Plot		13 Jul 1864
Hayden	Oliver		4-08	marble		O. Hayden Plot		23 Jan 1870
Wild	Abigail	Allen	4-09	marble		O. Hayden Plot		24 Jan 1848
Hayden	Robert		4-10	marble		O. Hayden Plot		1861
Hayden	Henry	Oliver	4-11	marble		O. Hayden Plot		20 May 1863
Hayden	Alice	Marion	4-12	marble		O. Hayden Plot	29 Nov 1857	27 Apr 1872
Hunt	Prudence		4-13	marble		M. Hunt Plot		09 May 1860
Dow	Sarah	E.	4-14	marble		M. Hunt Plot	1829	1888
Hunt	Minott		4-15	marble		M. Hunt Plot		09 Sep 1845
Hunt	Minott	E.	4-16	granite		M. Hunt Plot	02 Aug 1825	22 Mar 1893
Denton	Celina	Louisa	4-17	marble	granite	E. Denton Plot	28 Sep 1833	21 Feb 1843
Denton	Ebenezer		4-17	marble	granite	E. Denton Plot	12 Aug 1795	09 Jan 1862
Denton	Eliza	W.	4-17	marble	granite	E. Denton Plot	01 Jul 1800	26 Aug 1853
Dresser	Eliza	Augusta	4-17	marble	granite	E. Denton Plot	05 Jul 1828	06 May 1857
Mosman	Clara	Bell	4-17	marble		E. Denton Plot		1862
Mosman	Francis	Warren	4-17	marble		E. Denton Plot		1851
Mosman	Frederick	DeValson	4-17	marble		E. Denton Plot	1857	1858
Mosman	Lincoln	Seward	4-17	marble		E. Denton Plot	1865	1868
Mosman	Marion	Aleign	4-17	marble	granite	E. Denton Plot	1873	1889
Mosman	Warren	Denton	4-17	marble		E. Denton Plot		1860
Arnold	Franklin	Edwards	4-18	granite		F.E. Arnold Plot	05 May 1838	28 Mar 1909
Arnold	Susan	Ordway	4-18	granite		F.E. Arnold Plot		19 May 1876
Farnsworth	James	D.	4-19	marble		Fogg /Thayer Plot		12 Nov 1854
Farnsworth	Rebecca	M. T. Fogg	4-19	marble		Fogg /Thayer Plot		25 Apr 1872

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Fogg	Charles	M.	4-19	marble		Fogg & Thayer Plot		09 Dec 1854
Fogg	Daniel		4-19	marble		Fogg & Thayer Plot	06 Apr 1759	23 Apr 1830
Fogg	Ebenezer	T.	4-19	marble		Fogg & Thayer Plot	09 Jul 1787	31 Jul 1796
Fogg	Ebenezer	T.	4-19	marble		Fogg & Thayer Plot	28 Mar 1795	11 May 1861
Fogg	Jeremiah	P.	4-19	marble		Fogg & Thayer Plot	23 Jul 1785	23 Sep 1843
Fogg	Samuel	A.	4-19	marble		Fogg & Thayer Plot	07 Jul 1790	13 Aug 1796
Fogg	Stephen	M. T.	4-19	marble		Fogg & Thayer Plot	17 Jul 1792	06 Dec 1792
Fogg	Susan	N. T.	4-19	marble		Fogg & Thayer Plot		19 Jan 1874
Fogg	Susanna		4-19	marble		Fogg & Thayer Plot		01 Aug 1856
French	C.	L.	4-19	marble		Fogg & Thayer Plot		12 Jun 1860
Thayer	C.	H.	4-19	marble		Fogg/Thayer Plot	1853	1925
Thayer	Elisha	N.	4-19	marble		Fogg & Thayer Plot	29 Oct 1802	05 Oct 1836
Thayer	Sarah	H.	4-19	marble		Fogg/Thayer Plot	1833	1903
Thayer	Susanna	N.	4-19	marble		Fogg/Thayer Plot	1820	1912
Adams	John		4-20	marble		Perkins Plot		12 Nov 1855
Adams	Mary	Ann	4-20	marble	3 marble	Perkins Plot		21 May 1881
Coburn	Peter	H.	4-20	marble		Perkins Plot		30 Nov 1875
Coburn	Susan		4-20	marble		Perkins Plot		06 Dec 1909
Hicks	Sue	Howard	4-20	marble		Perkins Plot		1964
Howard	Ethelyn	A.	4-20	marble		Perkins Plot	1891	blank
Howard	Carrie	T.	4-20	marble		Perkins Plot	1860	1931
Howard	William		4-20	marble		Perkins Plot	1861	1934
Mosman	Lorne	B.	4-20	marble		Perkins Plot		1957
Mosman	Marion	Howard	4-20	marble		Perkins Plot		1948
Perkins	Claribell		4-20	marble		Perkins Plot		03 Sep 1848
Perkins	Hannah	B.	4-20	marble		Perkins Plot		14 Jun 1866
Perkins	Oliver	Augustus	4-20	marble		Perkins Plot		11 Sep 1846
Vickery	Lucy		4-20	marble		Perkins Plot		08 Jul 1828
Vickery	Martha	Perkins	4-20	marble		Perkins Plot		28 Sep 1843
Coburn	Claribel	P.	4-21	marble		Perkins Plot		04 Feb 1854
Howe	Susan		4-22	marble		Howe Plot		21 Feb 1863
Howe	Caroline	G.	4-23	marble		Howe Plot	01 Feb 1811	05 Jan 1848
Howe	Daniel	W.	4-23	marble		Howe Plot	19 Jul 1831	20 Nov 1861
Howe	Daniel		4-23	marble		Howe Plot	05 Dec 1776	08 Jul 1863
Howe	Daniel		4-23	marble		Howe Plot	12 Oct 1807	01 Dec 1880
Howe	Hannah	L. Cook	4-23	marble		Howe Plot	31 Oct 1811	04 Dec 1889
Howe	Mary	L.	4-23	marble		Howe Plot	29 Mar 1868	10 Jan 1869
Howe	Sally	Blunt	4-23	marble		Howe Plot	01 Jan 1782	27 Sep 1870
White	Sally		4-24	marble		J. Holbrook Plot		1821
Holbrook	Ruthy	Belcher	4-25	marble		J. Holbrook Plot	22 May 1815	05 Jun 1895
Holbrook	James	S.	4-26	marble		J. Holbrook Plot	23 Jan 1806	01 Jun 1891
Holbrook	Eliza	Stone	4-27	marble		J. Holbrook Plot		23 Sept 1846
Currier	Mary		4-28			Arnold/Holbrook Plot	26 Jan 1848	10 Sep 1872
Arnold	John	Vinton	4-29	marble		Arnold/Holbrook Plot		01 June 1864
Arnold	Anna		4-30	marble		J. Holbrook Plot		07 May 1842
White	Caleb		4-30B	marble				29 Aug 1851
Arnold	Hannah	Stone	4-31	marble		J. Holbrook Plot		02 Apr 1869
Hand??	Lydia		4-32	marble		J. Holbrook Plot		31 July 1877
Holbrook	Amos	Parnsworth	4-33	marble				22 Nov 1848
Holbrook	Hannah	S.	4-34	marble		J. Holbrook Plot		09 Nov 1848
Hobart	Mary	E.	4-35	granite		Luther Thayer Plot	1882	1890
Thayer	Elizabeth	D.	4-36	marble		Luther Thayer Plot		03 Jan 1881
Thayer	Sarah	E.	4-37	marble	marble			26 May 1849
Thayer	Joseph	V.	4-38	marble		Luther Thayer Plot		26 Mar 1851
Thayer	Nathaniel	P.	4-39	marble		Luther Thayer Plot		22 Oct 1851
Childs	Annie	Wilder	4-40	granite		L.W. Childs Plot	1872	1903
Childs	J.	Ward	4-40	granite		L.W. Childs Plot	01 Jun 1838	15 Feb 1895
Childs	Phebe	Ann	4-40	granite		L.W. Childs Plot	1844	1936
Holbrook	Fanny	T.	4-41	marble	marble	H.J. Holbrook Plot		02 Aug 1882

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Holbrook	Henry	E.	4-41	marble	marble	H.J. Holbrook Plot		28 Apr 1869
Holbrook	Henry	J.	4-41	marble	marble	H.J. Holbrook Plot		08 Dec 1878
Stetson	Ellen	F.	4-41	marble		H.J. Holbrook Plot	1829	1918
Stetson	Franklin	Holbrook	4-42	marble	marble	H.J. Holbrook Plot		26 Feb 1855
Dickerman	Mary	Ella	4-43	marble		C. Dickerman Plot		11 Sep 1861
Dickerman	Lydia		4-44	marble		C. Dickerman Plot		12 Apr 1862
Dickerman	Charles	Eliot	4-45	granite		C. Dickerman Plot	1864	1864
Dickerman	Cleora	Adeline	4-45	granite		C. Dickerman Plot	1837	1926
Dickerman	John	Eliot	4-45	granite		C. Dickerman Plot	1837	1903
Dickerman	John	Eliot	4-45	granite		C. Dickerman Plot	1866	1866
Dickerman	Mary	Louise	4-45	granite		C. Dickerman Plot		1963
Dickerman	Charles		4-46	marble		C. Dickerman Plot		27 Sep 1854
Dickerman	Mary		4-47	marble		C. Dickerman Plot	07 Jan 1801	21 Apr 1888
Thayer	Mary D.		4-48	granite		Dickerman Plot	1829	1924
Thayer	Nahum		4-48	granite		Dickerman Plot	1827	1906
Thayer	George	W.	4-49	marble		Arnold & Thayer Plot	1804	1874
Thayer	Nancy	A.	4-49	marble		Arnold/Thayer Plot	1802	1888
Hollis	John		4-50	marble		Arnold/Thayer Plot		03 Nov 1839
Arnold	Clarissa	J.	4-51	granite		Arnold & Thayer Plot		16 Aug 1838
Arnold	Eunice	C.	4-51	granite		Arnold/Holbrook Plot	1809	1897
Arnold	Ralph	Hollis	4-51	granite		Arnold/Thayer Plot		1841
Arnold	Ralph		4-51	granite		Arnold/Thayer Plot		08 May 1878
Arnold	Stephen	Stebbins	4-51	granite		Arnold/Thayer Plot		1841
Bowditch	Ebenezer	G.	5-01	marble		French Plot	1810	1894
Bowditch	Edward	G.	5-02	granite		French Plot	1875	blank
Bowditch	Mary	A.	5-02	granite		French Plot	1874	1929
Bowditch	Susan	S.	5-03	marble		French Plot	1847	1928
Bowditch	Lizzie	H.	5-04	marble		French Plot	1840	1892
Bowditch	Ann	W.	5-05	marble		French Plot	1818	1893
Bowditch	Charles	F.	5-06	marble		French Plot	1847	1892
Bowditch	Sarah	A.	5-07	marble		French Plot	1837	1910
French	Jane	Bates	5-08	marble		French Plot		09 Nov 1874
French	Sarah		5-09	marble		French Plot		13 Feb 1861
French	Charles		5-10	marble		French Plot		21 Jan 1836
French	Infant		5-11	marble		French Plot		1833
French	Ruth		5-12	granite		French Plot	16 Dec 1903	01 Feb 1910
French	Charles	Edward	5-13	marble		French Plot	25 Aug 1838	23 Nov 1890
French	Julia	M.	5-13	marble		French Plot	1847	1932
Berry	Sarah	G. French	5-14	marble		French Plot	06 Nov 1835	14 May 1878
French	Caroline	E.	5-15	marble		French Plot	19 Dec 1843	12 Jul 1862
French	Catherine	L.	5-16	marble		French Plot	23 Jan 1816	09 Mar 1891
French	Charles		5-17	marble		French Plot		23 Sep 1861
French	William	Henry	5-18	granite		French Plot	1854	1898
French	Charles	H.	5-19	granite		French Plot	1877	1919
French	Ella		5-19	granite		French Plot	1851	1927
French	George	Guild	5-19	granite		French Plot	1840	1910
Mcgrath	John	Richard	5-20	granite		French Plot		1942
Mcgrath	Pauline	French	5-20	granite		French Plot		1968
Mcgrath	Ruth	Lamb	5-20	granite		French Plot		1910
Mcgrath	Sarah	Catherine	5-20	granite		French Plot		1955
French	Pauline		5-21	granite		French Plot	21-Feb-01	17-May-68
Procter	Mary	L.	5-22	granite		French Plot	1847	1923
Procter	Nehemiah	R.	5-22	granite		French Plot	1845	1905
French	Charles	H.	5-23	granite		French Plot		
Arnold	S.	V.	6-01	tomb		S.V. Arnold Tomb		
Hayward	Julia	F.	6-02	marble		S.V. Arnold Plot		16 Jun 1909
Delano	Mansfield	H.	6-03	marble		Doble Plot		14 Jan 1863
Doble	Charles	Otis	6-04	marble	marble	Doble Plot		07 Mar 1854
Doble	Elvira		6-05	granite		Doble Plot	1822	1907

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Doble	Henry	P.	6-06	marble	marble	Doble Plot		19 Oct 1859
Denton	William	Pitt	6-07	marble		Wm. Denton Plot		12 Apr 1855
Denton	Sarah	Foster	6-08	marble		Wm. Denton Plot		20 Dec 1853
Denton	William		6-08	marble		Wm. Denton Plot	1794	1865
Penniman	Lucy	Mary	6-09	slate	slate			1836
French	Eunice	Denton	6-10	granite		French Plot	1791	1870
French	Samuel		6-10	granite		French Plot	1790	1858
Minchin	Charles	E.	6-10	granite			1851	1935
Minchin	Eunice	E.	6-10	granite			1848	1892
Minchin	Lizzie	C. French	6-10	granite			1853	1915
Minchin	Mary	E. Tirrell	6-10	granite			1827	1908
Minchin	Paul	J.	6-10	granite			1825	1912
Penniman	Abijah	N.	6-11	marble		Abijah Penniman Plot		20 Dec 1871
Penniman	Abijah		6-12	marble		Abijah Penniman Plot		11 Jan 1878
Penniman	Lucy		6-13	marble		Abijah Penniman Plot		11 Dec 1884
Penniman	Susan	S.	6-14	marble		Abijah Penniman Plot		07 Jan 1891
Penniman	William		6-15	marble		Abijah Penniman Plot		14 May 1862
Fogg	Sarah	H.	6-16	marble		Thomas Fogg		06 Jul 1853
Fogg	Susan	B.	6-17	granite		Thomas Fogg	1821	1896
Fogg	Thomas	P.	6-17	granite		Thomas Fogg	1824	1909
Holyoke	Chester	C.	6-18	granite		Holyoke Plot	23 Sep 1888	08 Dec 1899
Holyoke	Edward	C.	6-19	granite		Holyoke Plot	1858	
Holyoke	Emma	H.	6-19	granite		Holyoke Plot	1856	
Pidgeon	R.	A.	6-20			Holyoke Plot	1847	1881
Hollis	Elizabeth		6-21	granite		J.W. Hollis Plot	1805	1872
Hollis	J.	Webster	6-21	granite		J.W. Hollis Plot	1826	1888
Hollis	Jonathan	S.	6-21	granite		J.W. Hollis Plot	1830	1902
Hollis	Josiah		6-21	granite		J.W. Hollis Plot	1799	1874
Hollis	Mary	A. Cutting	6-21	granite		J.W. Hollis Plot	1826	1910
Hollis	Mary	F.	6-21	granite		J.W. Hollis Plot	1857	1869
Hobart	Charles	W.	6-22	granite		C. Hobart Plot	1820	1894
Hobart	Mary	P.	6-22	granite		C. Hobart Plot	25 Sep 1826	16 Oct 1886
Hobart	John		6-23	marble		C. Hobart Plot		17 Sep 1853
Hobart	Mehitable	Hayden	6-23	marble		C. Hobart Plot		01 Aug 1816
Hobart	Susanna	Hunt	6-23	marble		C. Hobart Plot		09 Feb 1842
Hobart	Albert		6-24	granite			12 Oct 1828	30 Jun 1910
Hobart	Louisa	Rich	6-24	granite				1923
Hobart	Albert	Rich	6-25	granite			1858	1925
Hobart	Bertha	Bishop	6-25	granite				17 Dec 1925
Hobart	Abraham		6-26	granite		was Tomb #14	1779	1863
Thayer	Soloman		6-27	granite		WAS Tomb #13	1755	1835
French	Asa		6-28	granite		was Tomb #12	1775	1853
Denton	James		6-29	granite		was Tomb #11	1793	1865
Denton	Jonathan		6-29	granite		was Tomb #11	1759	1859
Hobart	Elisha		6-30	iron door		was Tomb #9		
Wild	Jonathan		6-30	iron door		was Tomb #9		
French	Jonathan		6-31	granite		was Tomb #7	1802	1882
French	Sarah	B.	6-31	granite		was Tomb #7	1801	1890
French	Benjamin	Vinton	6-33	granite		was Tomb #5	29 Jul 1791	11 Apr 1860
French	Moses, Jr.		6-33	granite		was Tomb #6	1794	1871
French	Benjamin	Vinton	6-34	granite			29 Jul 1791	11 Apr 1860
Hollis	David		6-35	granite		was Tomb #4	1782	1858
Hollis	Caleb	S.	6-36	granite			1821	1910
Hollis	Hannah	R.	6-36	granite			1839	1928
Hayward	J.	Eliphaz	6-37	granite	2 granite		1822	1916
Hayward	Susan	C.	6-37	granite			1836	1913
Hunt	Esther		6-37	granite			1825	1907
Hunt	Nathaniel	F.	6-37	granite				22 Feb 1914
Doble	Georgie	May	6-38	marble		DISPLACED ?		

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
French	J.		6-39	iron door		was Tomb #2		
French	S.		6-39	iron door		was Tomb #2		
Hollis	C.		6-39	iron door		was Tomb #2		
Haden	Esther		A-01	fieldstone	A-08/fieldstone			14 Feb 1758
W.	S.		A-02	fieldstone				1802
Webb	John		A-03	fieldstone				12 Oct 1749
Haden	Amey		A-04	fieldstone				
H.	E.	H.	A-05	fieldstone				1734
Allen	Joseph		A-06		slate			
UID			A-07	fieldstone				
EA?			A-08	fieldstone				
DB 6			A-09	fieldstone				
DB 6			A-10	fieldstone				
Thayer	Sarah		A-11	slate				19 Aug 1751
Haden	child		B-01	fieldstone				13 Apr 1754
Pratt	Jeru.		B-02	slate				25 Sep 1769
Collins	Sarah	May	B-03	fieldstone				10 --- 1770
Capen	John	C.C.	B-04		slate			12 Apr 1748
Thayer	E.		B-05	slate				21 May 1720
Webb	Amey		B-06	slate				24 Feb 1717
Thayer	William		B-07	fieldstone				27 Jan 1756
UID			B-08	fieldstone				
Capen	John	C. C.	B-09	slate	B-04/slate			12 Apr 1748
Capen	Phebe		B-10	slate				11 Dec 1769
Capen	Nathaniel		B11	slate		DISPLACED		16 Dec 1769
UID			B-11A	fieldstone				
Thayer	Sarah		B-12	slate				21 Mar 1736
Holbrook	Mary		B-13	slate				07 Mar 1781
Copeland	Daniel		B-14	slate				15 Oct 1805
Copeland	Lavina		B-15	slate				09 Sep 1809
Hayden	Sarah		B-16	slate				02 Nov 1811
Penniman	William		B-17	slate				10 Jul 1813
Penniman	Sarah		B-18	slate				15 Jan 1807
Penniman	Elijah		B-19	marble				08 May 1833
Penniman	Ruth		B-19	marble				08 Dec 1859
Penniman	Ruth		B-19	marble				22 Mar 1838
Reed	William		B-20	slate				14 Sep 1813
UID			B-21	slate				
UID			B-22	fieldstone				
Arnold	Moses		B-23	slate	slate			07 Jun 1788
Gorham	David		B-24	slate				1803
Domett	George		B-25	slate	slate			06 Oct 1804
Hobart	Minot	T.	B-26	marble				08 Jul 1857
French	Elisha		B-27	marble				06 Oct 1877
French	Lucinda		B-27	marble				01 Jul 1881
French	Lucy		B-28	marble				
Veazie	Lucy	M. French	B-28	marble				27 Mar 1859
Gorham	Hannah	A.	B-29	marble	marble			08 Feb 1835
Loring	Daniel		B-30	slate			19 Jan 1751	27 Jul 1831
Loring	Mary	T.	B-31	slate			30 Mar 1757	08 Apr 1834
Holbrook	Henry	Martin	B-32	slate				23 Aug 1828
Nason	Charles	S.	B-33	slate			27 Oct 1836	01 Dec 1836
Penniman	Josiah		B-34	slate				11 Jun 1825
Penniman	Mary		B-35	slate				16 Apr 1831
Penniman	Barzillai		B-36	marble				27 Jul 1854
Penniman	Ruth		B-37	marble				23 Jan 1838
Penniman	Barzillai	N.	B-38	slate				30 Sep 1852
Capen	Deborah		C-01	slate	slate			07 Aug 1798
Capen	Nathaniel		C-02	slate	slate			27 Apr 1806

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Jones	Ephraim		C-03	slate	slate			27 Jan 1757
Jones	Mary		C-04	slate	slate			30 Jan 1733
Hollis	John		C-05	slate	slate			27 Mar 1765
Hollis	Hannah		C-06	slate	slate			19 May 1777
Hollis	Benjamin		C-07	slate				17 Mar 1778
UID			C-08	marble				
Faxon	Charles, Jr.		C-09	slate				24 Jul 1848
Faxon	James	M.	C-10	slate				20 Nov 1842
Faxon	Sargent		C-11	slate				29 May 1844
Faxon	Rhoda		C-12	slate				19 Dec 1847
Faxon	Charles		C-13	marble				13 Feb 1867
Allen	Abigail		D-01	slate	slate			09 Jan 1745
Allen	Lydia		D-02	slate				18 May 1745
Hobart	Adam		D-03	slate	slate			18 May 1824
Vinton	Hepzibah		D-04	slate	slate			17 Feb 1809
Vinton	Jo(hn)		D-05	slate	slate			-- --- 1803
Hiscock	Elizabeth		D-06	slate	slate			07 Mar 1809
Vinton	Mehitable		E-01	slate	E-17			17 May 1761
Allen	Abigail		E-02		slate			14 Jul 1746
Allen	Joseph		E-03	slate	E-06/slate			20 Mar 1727
Allen	Samuel, Sr .		E-04	slate				25 Aug 1725
Allen	Benjamin		E-05	slate	slate			14 Oct 1761
Allen	Joseph		E-06		slate			1727
			E-07		slate			
Allen	Joseph		E-08	slate				17 Apr 1727
Allen	Samuel		E-09	slate				1725
Allen	Alice		E-10	slate	E-12			28 Nov 1741
Allen	Benjamin		E-11	slate	E-07, slate			08 May 1764
Allen	Pricilla	Tenney	E-11	slate	E-07/slate			18 May 1759
Allen	Alice		E-12		slate			
UID			E-13		slate			
Allen	Abigail		E-14	slate	E-02			14 Jul 1746
Allen	Alice		E-14	slate	E-02			07 Jul 1746
Allen	Jerusha		E-14	slate	E-02/slate			10 Jul 1746
Allen	Rhoda		E-14	slate	E-02/slate			12 Sep 1741
Penniman	Amasa		E-15	marble				07 Sep 1828
Penniman	Eunice		E-15	marble				12 Jul 1822
Soper	Betsey	Crosby	E-16	slate				26 Jul 1782
Soper	Edmund		E-16	slate				27 Sep 1776
Soper	Eunice		E-16	slate				03 Jan 1786
Soper	Eunice		E-16	slate				24 Sep 1774
Soper	Fanny		E-16	slate				23 Dec 1801
Soper	Jesse	Curtis	E-16	slate				16 Aug 1790
Soper	Martha		E-16	slate				05 May 1789
Soper	Theophilus		E-16	slate				03 May 1784
Vinton	Mehitable		E-17		slate			17 May 1761
Adams	Martha		E-18	marble				27 Dec 1823
Thayer	Abigail		E-19		slate			
Penniman	Ruth		E-20		slate			
Tenney	Gershom		E-21	slate	slate			29 Dec 1768
Denton	Elizabeth		E-22	slate				13 Sep 1821
Denton	Jacob		E-22	slate				06 May 1821
Capron	Thomas		E-23	slate				13 Mar 1809
Denton	Mary		E-24	slate				11 Nov 1817
Denton	Gideon		E-25	marble				18 Feb 1823
Denton	Polly	Crane	E-25	marble				24 Aug 1867
Sampson	Joshua		E-26	granite	granite		01 Mar 1776	29 Dec 1834
Sampson	Lucy		E-26	granite	granite		20 May 1778	02 Jun 1865
Sampson	Rachel		E-27	slate				23 Jun 1787

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Sampson	Rachel		E-28	marble				06 Nov 1856
Hunt	Elihu		E-29	granite			10 Jan 1765	01 Jun 1836
Hunt	Mary		E-29	granite			15 Sep 1767	27 Oct 1861
Hunt	Sally		E-29	granite			15 Sep 1803	13 Apr 1894
Denton	Ebenezer		E-30	granite			23 Jan 1793	15 May 1875
Denton	Mary		E-30	granite			08 Jan 1801	30 Jun 1833
Penniman	Atherton	Thayer	F-01	marble	marble			27 Nov 1864
Loud	Francis		F-02	slate				01 Feb 1804
Penniman	Abigail		F-03	slate				03 Apr 1738
Thayer	Abigail		F-04	slate				06 Aug 1727
Penniman	Ruth		F-05	slate	E-20			17 Aug 1776
Penniman	Enoch		F-06	slate	slate			06 Oct 1746
Penniman	James		F-07	slate				03 Jul 1752
Penniman	James		F-08	slate				22 May 1789
Penniman	Dorcas		F-09	slate				14 Oct 1796
Thayer	infant		F-10	slate				09 May 1754
Thayer	John		F-10	slate				04 Dec 1753
Thayer	Susanna		F-10	slate				09 May 1754
Thayer	Ruth		F-11	slate	slate			27 May 1740
Thayer	Ebenezer		F-12	slate				11 Jun 1720
Mekuset	Daniel		F-13	slate	slate			02 Jan 1717
French	Silence		F-14	slate				03 Mar 1776
Thayer	Eleanora	E.	F-15	slate				
French	Josiah		F-16	slate				04 Oct 1823
Penniman	Silence		F-17		slate			03 May 1817
Penniman	Children		F-18	marble				
Wales	Nathaniel		F-19	marble				24 Dec 1825
Wales	Mary		F-20	marble				27 Jan 1841
Foye	Harriet	Elizabeth	G-01	slate	slate			13 Feb 1844
Guild	Francis	Eugene	G-02	slate				23 Aug 1846
Savel	Bethiah		G-03	slate				11 Oct 1770
Allen	Abigail		G-04	slate	slate			25 Mar 1778
Allen	Abijah		G-04	slate	slate			20 Aug 1786
Allen	Infant		G-04	slate	slate			07 Jun 1799
Allen	John		G-04	slate	slate			07 Jun 1799
Vinton	Samuel		G-05	slate				08 Dec 1786
Lane	Daniel		G-06	slate				24 Nov 1840
Thayer	Gideon		G-07	slate				23 Apr 1841
Thayer	Jemina		G-07	slate				11 Mar 1801
Thayer	Jemina		G-07	slate				11 Feb 1805
Thayer	Joseph		G-07	slate				28 Sep 1811
Wales	Nathaniel	W.	G-08	slate				30 Jun 1839
Allen	Eliza		H-01	slate				20 Dec 1794
Allen	Ira		H-01	slate				07 Oct 1805
Allen	Joseph, Jr.		H-01	slate				12 Aug 1815
Allen	Sophia		H-01	slate				06 Jan 1814
Allen	Susan		H-01	slate				18 Jun 1817
Allen	Thomas	J.	H-01	slate				21 Oct 1802
Allen	William		H-02	slate	slate			20 Jul 1740
Thayer	Sarah		H-03	slate				10 Dec 1771
Allen	Benjamin		H-04	slate				02 Oct 1733
Allen	Samuel		H-05	slate				15 Sep 1734
Curtis	Rebecca		H-06	slate	slate			10 Aug 1771
Thayer	Rebecca		H-07	slate	slate			28 Jan 1732
Thayer	Nathaniel, Esq.		H-08	marble				13 Aug 1829
Ryan	Sarah		H-09	slate				18 Apr 1841
Sullivan	Nancy	M.	H-10	marble				20 Apr 1848
Gilman	Peter	S.	H-11	marble				07 May 1852
French	Moses		I-01	slate				19 Jan 1807

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
French	Moses		I-02	slate	slate			19 Sep 1768
French	Elizabeth		I-03	slate				25 Dec 1822
French	Caleb		I-04	slate				13 Jul 1823
Thayer	Lydia		I-05	slate				19 Mar 1783
Arnold	Lydia		I-06	slate	slate			17 Sep 1783
Arnold	Lydia		I-06	slate				Aug 1784
Thayer	Esther		I-07	slate	slate			29 Aug 1793
French	Elizabeth		I-08	slate	slate			06 Mar 1796
Arnold	Jonathan		I-09	slate	slate			06 Mar 1802
Thayer	Lucretia	D.	I-10	slate	slate			31 Jan 1844
Thayer	Elisha	Warren	I-11	slate	slate			17 Feb 1843
Thayer	William	Henry	I-11	slate	slate			13 Sep 1843
Thayer	Elisha		I-12	slate	slate			06 Apr 1834
Cochran	Linus		I-13	slate				24 Aug 1843
Thayer	Obediah		I-14	slate	slate			17 Jun 1841
Thayer	Nathaniel	Emmons	I-15	marble			29 May 1778	08 Sep 1812
Thayer	Deliverance		I-16	marble			01 May 1783	02 May 1877
Hayward	John		J-01	slate				14 Sep 1773
Hayward	Silence		J-02	slate	slate			05 Oct 1789
Hayward	Thomas		J-03	slate				17 Jun 1791
Hayward	Ebenezer		J-04	slate				03 Feb 1775
Hayward	Elizabeth		J-05	slate				03 Feb 1775
Hayward	Caleb		J-06	marble				23 May 1800
Hayward	David	Pearson	J-07	slate	slate			27 Sep 1813
Hayward	Lois		J-08	slate	slate			02 Mar 1825
White	Augustus		J-09	slate	slate			Jun 1778
Heard	Rutha		J-10	slate	slate			05 Jun 1817
Thayer	Deborah		J-11	slate				
Thayer	William		J-11	slate				17 Mar 1822
Thayer	Deborah		J-12	slate				23 Jan 1810
Thayer	James	I.	J-13	slate	slate			19 Jun 1790
Thayer	Deborah		J-14	slate				12 Dec 1792
Thayer	Sarah		J-15	slate				13 Oct 1813
Thayer	Nehemiah		J-16	slate				27 Jun 1812
Dickerman	David	Brainard	J-17	slate			14 Dec 1832	12 Oct 1833
Dickerman	DavId	Brainard	J-18	slate			10 Jul 1835	28 Oct 1836
Williams	Sarah	G.	J-19	slate				14 Jan 1848
Williams	Sarah		J-20	marble				14 Nov 1856
Wild	Sarah		K-01	slate				26 Oct 1769
Wild	Ruth	Thayer	K-02	slate	slate			12 Jan 1794
Wild	Silas		K-03	slate	slate		1736	30 Sep 1807
French	Mehitable		K-04	slate				22 Aug 1819
French	Elizabeth		K-05	marble				20 Nov 1820
Hayward	Jonathan		L-01	slate				13 Jan 1797
Hayward	Sarah		L-02	slate				20 Apr 1812
French	Benjamin		L-03	slate	slate			08 May 1772
French	Lewis		L-04	marble				30 Apr 1827
Jarvis	John		L-05	marble	marble		21 Jun 1791	21 Aug 1824
Jarvis	Mary	R.	L-06	marble	marble			29 Sep 1829
French	Lewis		L-07	slate	slate			29 Dec 1824
French	Julia		L-08	marble	marble			27 Jul 1826
French	Sally	A.	L-09	granite			1798	1848
Monroe	Rachel	R.	L-10	granite			1828	1858
Vickery	Eliza	T.	L-11	marble			18 Oct 1817	10 Jun 1843
UID			M-01		slate			
Wild	Sarah		M-02	slate				29 Jan 1724/25
Doble	Susanna		M-03	slate	N-04/slate			1775
White	Thomas		M-04	slate	slate			18 Mar 1778
Thayer	Abigail		M-05	slate	E-19/slate			01 Jan 1730

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
French	Samuel		M-06	slate				19 Jul 1761
Hayden	Elizabeth		M-07	slate				31 May 1820
Hayden	Robert		M-07	slate				05 Apr 1822
French	Elizabeth		M-08	slate				16 Oct 1825
White	Joseph		M-09	slate	slate			Aug 1774
White	Sarah		M-09	slate	slate			05 Jan 1772
Vinton	Henry		M-10	marble				12 Aug 1790
Vinton	Henry 2nd		M-10	marble				13 May 1799
Vinton	Mehitable		M-10	marble				26 Jan 1796
Vinton	Nancy	A.	M-10	marble				26 Feb 1806
Allen	Abijah		M-11	slate				10 Nov 1759
Allen	Ruth		M-12	slate				18 Nov 1802
Plaisted	Charlotte	Lane	M-13	marble		Storrs Plot	06 Jan 1787	12 Jan 1881
Storrs	Charles	B.	M-14	marble		Storrs Plot	23 May 1794	15 Sep 1833
Storrs	Harriet		M-15	marble		Storrs Plot	12 Dec 1786	10 Jul 1834
Storrs	Sarah	S.	M-15	marble		Storrs Plot	14 Mar 1793	06 Apr 1818
Storrs	Anne	Stebbins	M-16	granite		Storrs Plot	15 Nov 1792	27 Aug 1874
Storrs	Richard	Salter, D.	M-16	granite		Storrs Plot	06 Feb 1787	11 Aug 1873
Holland	Rose	Stifler	M-17	slate			1883	1963
Holland	Winfield	Scott	M-17	slate			1878	1934
Faxon	Mary		N-01	slate				19 Mar 1827
Faxon	Anna		N-02	slate	slate			12 Jun 1763
White	Lydia		N-03	slate	slate			-- Jan 1778
Doble	Sussana	White	N-04	slate	M-04/slate			22 Aug 1775
White	Samuel		N-05	slate	slate			29 Mar 1766
White	Samuel		N-06	slate	slate			04 Nov 1756
White	Ebenezer		N-07	slate	slate			19 Jul 1770
White	Lydia		N-07	slate	slate			27 Jun 1755
White	William		N-08	slate	slate			15 Mar 1772
Thayer	Richard		N-09	slate				11 Sep 1729
Faxon	Richard		O-01	slate	slate			28 Aug 1772
Faxon	Richard		O-02	slate	slate			05 May 1768
Faxon	Anna		O-03	slate				16 Oct 1769
Faxon	Relief		O-04	slate				14 Jan 1774
Faxon	James		O-05	slate				21 Jun 1797
Willis	Josephine		O-06	marble				01 Sep 1835
Niles	Elizabeth	Thatcher	O-07	box tomb				10 Feb 1716
Vinton	Hannah		O-08	slate				14 Nov 1762
Vinton	Thomas		O-09	slate				18 Jan 1757
Vinton	John		O-10	slate				05 Feb 1737/38
Vinton	William		O-10	slate				07 Jan 1737/38
Vinton	Thomas		O-11	slate	slate			28 Feb 1776
Hollis	John		O-12	slate				28 Dec 1801
Hobart	Rebecca		O-13	slate				19 Mar 1834
Veazie	Lemuel	Storrs	O-14	marble				10 Jan 1863
Veazie	Rachel		O-15	marble				08 Mar 1864
Clark	Peter		P-01	slate				13 Nov 1747
Wales	Mary		P-02	marble				27 Jan 1841
Niles	Nathaniel		P-03	granite				22 Dec 1727
Niles	Ann		P-04	slate				25 Oct 1732
Niles	Samuel		P-05	slate	slate		01 May 1674	01 May 1762
Weld	Ezra		P-06	marble	marble		13 Jun 1736	16 Jan 1816
Holbrook	Caleb		Q-01	slate				Mar 1793
Holbrook	David		Q-01	slate				26 Mar 1782
Holbrook	Jonathan		Q-01	slate				12 May 1797
Holbrook	Moses		Q-01	slate				27 Aug 1795
Weld	Anna		Q-02	slate	slate			10 Jul 1774
Hay	Catherine	Weld	Q-03					16 Aug 1820
Weld	Hannah		Q-03	marble	marble			31 Mar 1778

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Holbrook	David		Q-04	slate				16 Nov 1818
Holbrook	Mehitable		Q-05	marble	marble			20 Nov 1841
Thayer	Thomas		Q-06	slate	slate			22 Nov 1779
Thayer	Lydia		Q-07	slate	slate			15 Sep 1775
Faxon	Elizabeth		Q-08	slate				1737
Thayer	Hannah		Q-09	slate	slate			06 Mar 1832
Thayer	Nathaniel		Q-10	slate	slate		25 Apr 1752	08 Feb 1829
Thayer	James		Q-11	slate				01 Sep 1818
Thayer	Nathaniel		Q-12	slate				03 Aug 1817
Thayer	Thomas		Q-13	slate				21 Jun 1813
Jones	Lilly		Q-14	slate				04 Jun 1804
Faxon	Elihu		R-01	slate				07 Feb 1752
Faxon	Elizabeth		R-01	slate				05 Apr 1752
Faxon	Thomas		R-01	slate				12 Jun 1752
Thayer	Nathaniel		R-02	slate				28 Dec 1768
Thayer	Caleb		R-03	slate				26 Nov 1759
Thayer	Nathaniel, 2nd		R-04	slate	slate			03 Jan 1752
Thayer	Nathaniel		R-05	slate				28 Mar 1728
Veazie	Mary		R-06	marble			1758	1826
Veazie	Susan		R-07	marble			1760	1807
Veazie	Benjamin		R-08	marble				07 Mar 1802
Veazie	Mary	T(hayer	R-09	marble				----
Veazie	Nancy	C. ----	R-10	marble				
Veazie	Lemuel		R-11	slate				09 Jun 1825
Veazie	Sarah		R-12	slate				10 May 1824
Veazie	Joseph		R-13	marble			1758	1817
Veazie	Mary	M.	R-14	marble				21 Mar 1811
Veazie	Phebe		R-15	slate				14 Mar 1847
Veazie	Joseph	M.	R-16	marble				03 May 1848
Veazie	Susan	T.	R-16	marble				15 Sep 1848
Thayer	Elisha		R-17	marble			11 Jul 1779	27 Jan 1857
Thayer	Susanna	Veazie	R-17	marble			05 Jun 1781	16 May 1857
Thayer	E.		S-01	Tomb				
Allen	Lemuel		MISSING AS OF 2010	(slate)		M-11 vicinity		24 Jan 1805
Allen	Samuel, Jr.		MISSING AS OF 2010	(slate)		E-04 vicinity		18 Mar 1725
Allen	son		MISSING AS OF 2010	(slate)				04 Feb 1779
Arnold	Moses		MISSING AS OF 2010	"Removed"		(Tomb #3)		
B.	A.	B.	MISSING AS OF 2010	(fieldstone)				1716
Collings	Mary	J.	MISSING AS OF 2010					03 Dec 1829
Dickerman	Charles	C.	MISSING AS OF 2010	(marble)		(C. Dickerman Plot)		25 Jan 1865
Dickerman	Charles	Lowell	MISSING AS OF 2010	(marble)		(C. Dickerman Plot)	05 Jan 1858	26 May 1858
Doble	Susan	Jane	MISSING AS OF 2010	(marble)		(Doble Plot)		22 Sep 1848
Farnsworth	Ada	Maria	MISSING AS OF 2010					
Farnsworth	Lydia	Maria	MISSING AS OF 2010					
Farnsworth	Mary	Ella	MISSING AS OF 2010					
Fogg	Betsey		MISSING AS OF 2010	(marble)		(Holyoke Plot)		25 Feb 1852
French	Josiah		MISSING AS OF 2010	(slate)				15 Nov 1760
Gage	Richard	Allen	MISSING AS OF 2010	(marble)		(Denton Plot)		30 Jan 185-
Hayden	Albert		MISSING AS OF 2010	(marble)				23 Mar 1864
Hayden	Benjamin		MISSING AS OF 2010	(slate)				14 May 1738
Hayden	Lizzie		MISSING AS OF 2010					
Hayden	Susanna		MISSING AS OF 2010	(slate)				28 Oct 1775
Holbrook	William	Augustus	MISSING AS OF 2010	(marble)		(H.J. Holbrook Plot)		11 Oct 1848
Hollis	Alethea		MISSING AS OF 2010	(slate)		vicinity of C-06		
Hollis	Mary	French	MISSING AS OF 2010	(marble)		(Arnold/Thayer Plot)		04 Dec 1848
Mann	Lydia		MISSING AS OF 2010	(marble)				31 Jul 1877
Minchin	Clarissa	B.	MISSING AS OF 2010	marble		(Minchin Plot)		17 Apr 1896
Penniman	George	W.	MISSING AS OF 2010			E-15 vicinity		25 Nov 1832
Sawyer	Margaret	Ann	MISSING AS OF 2010			(C.H. Sawyer Plot)		07 Sep 1836

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Sawyer	William	A(ugustus	MISSING AS OF 2010	(marble)		(C.H. Sawyer Plot)		30 Mar 1842
Thayer	Atherton		MISSING AS OF 2010					
Thayer	John		MISSING AS OF 2010					
Thayer	Johnme---		MISSING AS OF 2010					
Thayer	William		MISSING AS OF 2010					
Tupper	Jennie		MISSING AS OF 2010	(marble)			1860	1897
Vickery	George	C.	MISSING AS OF 2010	(marble)			03 Jun 1843	01 Apr 1846
Alden	Leonard	Case	MISSING AS OF 2010	(marble plaque)		[Vinton Tomb]	22 Dec 1839	05 Oct 1863
Alden	Nancy	Adams	MISSING AS OF 2010	(marble plaque)		[Vinton Tomb]	26 Oct 1807	14 Feb 1893
Vinton	Anne	Adams	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		18 Dec 1851
Vinton	Eliza	Ann	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		05 Feb 1876
Vinton	Harriet	N.	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		23 May 1894
Vinton	Josiah		MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		27 Dec 1843
Vinton	Mary	A.	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		29 Oct 1881
French	Caroline		MISSING SINCE 1941	(slate)				21 Jul 1826
Ludden	Joseph	Henry	MISSING SINCE 1941	(marble)				20 Aug 1854
Ludden	Joseph	T.	MISSING SINCE 1941	(marble)			23 Jun 1819	12 Dec 1862
Thayer	Delivere[nce]		MISSING SINCE 1941	(slate)				17 Jan 1723
Thayer	E.		MISSING SINCE 1941	(slate)				30 Jun 1731
Thayer	Mary		MISSING SINCE 1941	(fieldstone)	(fieldstone)			14 May 1761
Wales	Elizabeth		MISSING SINCE 1941	(slate)				29 Jun 1750
Wales	Nathaniel		MISSING SINCE 1941	(slate)				
Hayden			MISSING: Section 6	(Tomb)		Was Tomb #10		
Hayward			MISSING: Section 6	(tomb)		Was Tomb #1		
Thayer	S.		MISSING: Section 6	(tomb)		Was Tomb #8		

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Adams	John		4-20	marble		Perkins Plot		12 Nov 1855
Adams	Julia		4-06	granite		E.N.Thayer Plot	1854	1919
Adams	Martha		E-18	marble				27 Dec 1823
Adams	Mary	Ann	4-20	marble	3 marble	Perkins Plot		21 May 1881
Alden	Leonard	Case	MISSING AS OF 2010	(marble plaque)		[Vinton Tomb]	22 Dec 1839	05 Oct 1863
Alden	Nancy	Adams	MISSING AS OF 2010	(marble plaque)		[Vinton Tomb]	26 Oct 1807	14 Feb 1893
Alden	William	Vinton	2-01	marble plaque		Vinton Tomb		22 Oct 1862
Allen	Alice		E-12		slate			
Allen	Joseph		A-06		slate			
Allen	Joseph		E-06		slate			1727
Allen	Abigail		D-01	slate	slate			09 Jan 1745
Allen	Abigail		E-02		slate			14 Jul 1746
Allen	Abigail		E-14	slate	E-02			14 Jul 1746
Allen	Abigail		G-04	slate	slate			25 Mar 1778
Allen	Abijah		G-04	slate	slate			20 Aug 1786
Allen	Abijah		M-11	slate				10 Nov 1759
Allen	Alice		E-10	slate	E-12			28 Nov 1741
Allen	Alice		E-14	slate	E-02			07 Jul 1746
Allen	Benjamin		E-11	slate	E-07, slate			08 May 1764
Allen	Benjamin		E-05	slate	slate			14 Oct 1761
Allen	Benjamin		H-04	slate				02 Oct 1733
Allen	Eliza		H-01	slate				20 Dec 1794
Allen	Elizabeth	Denton	1-13	marble		Allen Plot	26 Aug 1798	30 Dec 1867
Allen	Infant		G-04	slate	slate			07 Jun 1799
Allen	Ira		H-01	slate				07 Oct 1805
Allen	Jerusha		E-14	slate	E-02/slate			10 Jul 1746
Allen	John		G-04	slate	slate			07 Jun 1799
Allen	Joseph		E-03	slate	E-06/slate			20 Mar 1727
Allen	Joseph		E-08	slate				17 Apr 1727
Allen	Joseph, Jr.		H-01	slate				12 Aug 1815
Allen	Lemuel		MISSING AS OF 2010	(slate)		M-11 vicinity		24 Jan 1805
Allen	Lydia		D-02	slate				18 May 1745
Allen	Pricilla	Tenney	E-11	slate	E-07/slate			18 May 1759
Allen	Rhoda		E-14	slate	E-02/slate			12 Sep 1741
Allen	Richard	H.	1-13	marble		Allen Plot	1798	1884
Allen	Ruth		M-12	slate				18 Nov 1802
Allen	Samuel		E-09	slate				1725
Allen	Samuel		H-05	slate				15 Sep 1734
Allen	Samuel, Jr.		MISSING AS OF 2010	(slate)		E-04 vicinity		18 Mar 1725
Allen	Samuel, Sr .		E-04	slate				25 Aug 1725
Allen	son		MISSING AS OF 2010	(slate)				04 Feb 1779
Allen	Sophia		H-01	slate				06 Jan 1814
Allen	Susan		H-01	slate				18 Jun 1817
Allen	Thomas	J.	H-01	slate				21 Oct 1802
Allen	William		H-02	slate	slate			20 Jul 1740
Arnold	Clarissa	J.	4-51	granite		Arnold & Thayer Plot		16 Aug 1838
Arnold	John	Vinton	4-29	marble		Arnold/Holbrook Plot		01 June 1864
Arnold	Ann	Josephine	4-05	granite		E.F.E. Arnold Plot	1836	1837
Arnold	Anna		4-30	marble		J. Holbrook Plot		07 May 1842
Arnold	B.	F.	1-05	marble		Arnold Plot		20 Jan 1877
Arnold	B.	Lester	1-03	marble		Arnold Plot		06 Jan 1871
Arnold	Benjamin	V.	1-02	granite		Arnold Plot		24 Jul 1886
Arnold	Eliza	S.	1-05	marble		Arnold Plot		11 Sep 1843
Arnold	Elizabeth	F.	1-05	marble		Arnold Plot	1810	1891
Arnold	Eunice	C.	4-51	granite		Arnold/Holbrook Plot	1809	1897
Arnold	Franklin	Edwards	4-18	granite		F.E. Arnold Plot	05 May 1838	28 Mar 1909
Arnold	Hannah	Stone	4-31	marble		J. Holbrook Plot		02 Apr 1869
Arnold	John	G. W.	1-04	granite		Arnold Plot	25 Aug 1847	19 Apr 1885
Arnold	Jonathan		I-09	slate	slate			06 Mar 1802

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Arnold	Joseph	Allen	4-05	granite		E.F.E. Arnold Plot	1811	1886
Arnold	Joseph	Allen	4-05	granite		E.F.E. Arnold Plot	1841	1842
Arnold	Louisa	B. LEEDS	4-05	granite		E.F.E. Arnold Plot	1835	1908
Arnold	Lydia		I-06	slate	slate			17 Sep 1783
Arnold	Lydia		I-06	slate				Aug 1784
Arnold	Mary	Allen	4-05	granite		E.F.E. Arnold Plot	1786	1857
Arnold	Mary	H.	1-02	granite		Arnold Plot		29 Dec 1906
Arnold	Moses		B-23	slate	slate			07 Jun 1788
Arnold	Moses		MISSING AS OF 2010	"Removed"		(Tomb #3)		
Arnold	Ralph		4-05	granite		E.F.E. Arnold Plot	1783	1851
Arnold	Ralph		4-51	granite		Arnold/Thayer Plot		08 May 1878
Arnold	Ralph	Hollis	4-51	granite		Arnold/Thayer Plot		1841
Arnold	Rosette	E.	1-01	granite		Arnold Plot	1815	1898
Arnold	S.	V.	6-01	tomb		S.V. Arnold Tomb		
Arnold	Sarah	C. H.	1-05	marble		Arnold Plot		23 Dec 1833
Arnold	Sarah	Catherine	4-05	granite		E.F.E. Arnold Plot	1834	1853
Arnold	Sarah	Lewis	4-05	granite		E.F.E. Arnold Plot	1864	1917
Arnold	Sarah	W. French	4-05	granite		E.F.E. Arnold Plot	1814	1846
Arnold	Stephen	Stebbins	4-51	granite		Arnold/Thayer Plot		1841
Arnold	Sumner	W.	1-01	granite		Arnold Plot	1816	1888
Arnold	Susan	Ordway	4-18	granite		F.E. Arnold Plot		19 May 1876
Arnold	William	D.	1-03	marble		Arnold Plot		29 Sep 1872
B.	A.	B.	MISSING AS OF 2010	(fieldstone)				1716
Berry	Sarah	G. French	5-14	marble		French Plot	06 Nov 1835	14 May 1878
Blunt	David	Thayer	3-16	granite		E.S. Thayer Plot	1909	1986
Blunt	Gladys	Ross	3-16	granite		E.S. Thayer Plot	1913	1995
Blunt	Sophie	Thayer	3-16	granite		E.S. Thayer Plot	1875	1962
Bowditch	Ann	W.	5-05	marble		French Plot	1818	1893
Bowditch	Charles	F.	5-06	marble		French Plot	1847	1892
Bowditch	Ebenezer	G.	5-01	marble		French Plot	1810	1894
Bowditch	Edward	G.	5-02	granite		French Plot	1875	blank
Bowditch	Elizabeth		3-13	slate		Bowditch Plot	07 Feb 1772	04 Dec 1847
Bowditch	Lizzie	H.	5-04	marble		French Plot	1840	1892
Bowditch	Mary	A.	5-02	granite		French Plot	1874	1929
Bowditch	Sally		3-12	slate		Bowditch Plot	25 Jul 1779	24 Sep 1848
Bowditch	Sarah	A.	5-07	marble		French Plot	1837	1910
Bowditch	Susan	S.	5-03	marble		French Plot	1847	1928
Bradshaw	Sarah		1-17	marble		Sherman Plot		
Bunker	Ella	S.	3-09	granite		Vinton Plot	1846	1919
Capen	Deborah		C-01	slate	slate			07 Aug 1798
Capen	John	C. C.	B-09	slate	B-04/slate			12 Apr 1748
Capen	John	C.C.	B-04		slate			12 Apr 1748
Capen	Nathaniel		B11	slate		DISPLACED		16 Dec 1769
Capen	Nathaniel		C-02	slate	slate			27 Apr 1806
Capen	Phebe		B-10	slate				11 Dec 1769
Capron	Thomas		E-23	slate				13 Mar 1809
Childs	Annie	Wilder	4-40	granite		L.W. Childs Plot	1872	1903
Childs	J.	Ward	4-40	granite		L.W. Childs Plot	01 Jun 1838	15 Feb 1895
Childs	Phebe	Ann	4-40	granite		L.W. Childs Plot	1844	1936
Clark	Peter		P-01	slate				13 Nov 1747
Coburn	Claribel	P.	4-21	marble		Perkins Plot		04 Feb 1854
Coburn	Peter	H.	4-20	marble		Perkins Plot		30 Nov 1875
Coburn	Susan		4-20	marble		Perkins Plot		06 Dec 1909
Cochran	Linus		I-13	slate				24 Aug 1843
Collings	Mary	J.	MISSING AS OF 2010					03 Dec 1829
Collins	Sarah	May	B-03	fieldstone				10 --- 1770
Copeland	Daniel		B-14	slate				15 Oct 1805
Copeland	Lavina		B-15	slate				09 Sep 1809
Currier	Mary		4-28			Arnold/Holbrook Plot	26 Jan 1848	10 Sep 1872

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Curtis	Rebecca		H-06	slate	slate			10 Aug 1771
Daily	E.	Warner	4-01	granite		M. Hunt Plot		29 Sep 1878
Daily	Susan	H.	4-01	granite		M. Hunt Plot		16 Nov 1875
DB 6			A-09	fieldstone				
DB 6			A-10	fieldstone				
Delano	Mansfield	H.	6-03	marble		Doble Plot		14 Jan 1863
Denton	Celina	Louisa	4-17	marble	granite	E. Denton Plot	28 Sep 1833	21 Feb 1843
Denton	Ebenezer		4-17	marble	granite	E. Denton Plot	12 Aug 1795	09 Jan 1862
Denton	Ebenezer		E-30	granite			23 Jan 1793	15 May 1875
Denton	Eliza	W.	4-17	marble	granite	E. Denton Plot	01 Jul 1800	26 Aug 1853
Denton	Elizabeth		E-22	slate				13 Sep 1821
Denton	Gideon		E-25	marble				18 Feb 1823
Denton	Jacob		E-22	slate				06 May 1821
Denton	James		6-29	granite		was Tomb #11	1793	1865
Denton	Jonathan		6-29	granite		was Tomb #11	1759	1859
Denton	Mary		E-24	slate				11 Nov 1817
Denton	Mary		E-30	granite			08 Jan 1801	30 Jun 1833
Denton	Polly	Crane	E-25	marble				24 Aug 1867
Denton	Sarah	Foster	6-08	marble		Wm. Denton Plot		20 Dec 1853
Denton	William		6-08	marble		Wm. Denton Plot	1794	1865
Denton	William	Pitt	6-07	marble		Wm. Denton Plot		12 Apr 1855
Dickerman	Charles		4-46	marble		C. Dickerman Plot		27 Sep 1854
Dickerman	Charles	C.	MISSING AS OF 2010	(marble)		(C. Dickerman Plot)		25 Jan 1865
Dickerman	Charles	Eliot	4-45	granite		C. Dickerman Plot	1864	1864
Dickerman	Charles	Lowell	MISSING AS OF 2010	(marble)		(C. Dickerman Plot)	05 Jan 1858	26 May 1858
Dickerman	Cleora	Adeline	4-45	granite		C. Dickerman Plot	1837	1926
Dickerman	David	Brainard	J-17	slate			14 Dec 1832	12 Oct 1833
Dickerman	DavId	Brainard	J-18	slate			10 Jul 1835	28 Oct 1836
Dickerman	John	Eliot	4-45	granite		C. Dickerman Plot	1837	1903
Dickerman	John	Eliot	4-45	granite		C. Dickerman Plot	1866	1866
Dickerman	Lydia		4-44	marble		C. Dickerman Plot		12 Apr 1862
Dickerman	Mary	Louise	4-45	granite		C. Dickerman Plot		1963
Dickerman	Mary		4-47	marble		C. Dickerman Plot	07 Jan 1801	21 Apr 1888
Dickerman	Mary	Ella	4-43	marble		C. Dickerman Plot		11 Sep 1861
Dinsmore	Susan	M.	1-19	granite		Sherman Plot	1835	1900
Doble	Georgie	May	6-38	marble		DISPLACED ?		
Doble	Susanna		M-03	slate	N-04/slate			1775
Doble	Charles	Otis	6-04	marble	marble	Doble Plot		07 Mar 1854
Doble	Elvira		6-05	granite		Doble Plot	1822	1907
Doble	Henry	P.	6-06	marble	marble	Doble Plot		19 Oct 1859
Doble	Susan	Jane	MISSING AS OF 2010	(marble)		(Doble Plot)		22 Sep 1848
Doble	Sussana	White	N-04	slate	M-04/slate			22 Aug 1775
Domett	George		B-25	slate	slate			06 Oct 1804
Dow	Sarah	E.	4-14	marble		M. Hunt Plot	1829	1888
Dresser	Eliza	Augusta	4-17	marble	granite	E. Denton Plot	05 Jul 1828	06 May 1857
EA?			A-08	fieldstone				
Farnsworth	Ada	Maria	MISSING AS OF 2010					
Farnsworth	James	D.	4-19	marble		Fogg /Thayer Plot		12 Nov 1854
Farnsworth	Lydia	Maria	MISSING AS OF 2010					
Farnsworth	Mary	Ella	MISSING AS OF 2010					
Farnsworth	Rebecca	M. T. Fogg	4-19	marble		Fogg /Thayer Plot		25 Apr 1872
Faxon	Anna		N-02	slate	slate			12 Jun 1763
Faxon	Anna		O-03	slate				16 Oct 1769
Faxon	Charles		C-13	marble				13 Feb 1867
Faxon	Charles, Jr.		C-09	slate				24 Jul 1848
Faxon	Elihu		R-01	slate				07 Feb 1752
Faxon	Elizabeth		Q-08	slate				1737
Faxon	Elizabeth		R-01	slate				05 Apr 1752
Faxon	James		O-05	slate				21 Jun 1797

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Faxon	James	M.	C-10	slate				20 Nov 1842
Faxon	Mary		N-01	slate				19 Mar 1827
Faxon	Relief		O-04	slate				14 Jan 1774
Faxon	Rhoda		C-12	slate				19 Dec 1847
Faxon	Richard		O-01	slate	slate			28 Aug 1772
Faxon	Richard		O-02	slate	slate			05 May 1768
Faxon	Sargent		C-11	slate				29 May 1844
Faxon	Thomas		R-01	slate				12 Jun 1752
Fisher	Ann		2-04	marble		E. Fisher Plot		27 Nov 1877
Fisher	Ann	Maria	2-06	slate		E. Fisher Plot		29 Oct 1843
Fisher	Enoch	H.	2-05	marble		E. Fisher Plot		16 Nov 1876
Fogg	Betsey		MISSING AS OF 2010	(marble)		(Holyoke Plot)		25 Feb 1852
Fogg	Charles	M.	4-19	marble		Fogg & Thayer Plot		09 Dec 1854
Fogg	Daniel		4-19	marble		Fogg & Thayer Plot	06 Apr 1759	23 Apr 1830
Fogg	Ebenezer	T.	4-19	marble		Fogg & Thayer Plot	09 Jul 1787	31 Jul 1796
Fogg	Ebenezer	T.	4-19	marble		Fogg & Thayer Plot	28 Mar 1795	11 May 1861
Fogg	Jeremiah	P.	4-19	marble		Fogg & Thayer Plot	23 Jul 1785	23 Sep 1843
Fogg	Samuel	A.	4-19	marble		Fogg & Thayer Plot	07 Jul 1790	13 Aug 1796
Fogg	Sarah	H.	6-16	marble		Thomas Fogg		06 Jul 1853
Fogg	Stephen	M. T.	4-19	marble		Fogg & Thayer Plot	17 Jul 1792	06 Dec 1792
Fogg	Susan	B.	6-17	granite		Thomas Fogg	1821	1896
Fogg	Susan	N. T.	4-19	marble		Fogg & Thayer Plot		19 Jan 1874
Fogg	Susanna		4-19	marble		Fogg & Thayer Plot		01 Aug 1856
Fogg	Thomas	P.	6-17	granite		Thomas Fogg	1824	1909
Foye	Harriet	Elizabeth	G-01	slate	slate			13 Feb 1844
French	Jane	Bates	5-08	marble		French Plot		09 Nov 1874
French	Pauline		5-21	granite		French Plot	21-Feb-01	17-May-68
French	Asa		6-28	granite		was Tomb #12	1775	1853
French	Benjamin		L-03	slate	slate			08 May 1772
French	Benjamin	Vinton	6-33	granite		was Tomb #5	29 Jul 1791	11 Apr 1860
French	Benjamin	Vinton	6-34	granite			29 Jul 1791	11 Apr 1860
French	C.	L.	4-19	marble		Fogg & Thayer Plot		12 Jun 1860
French	Caleb		I-04	slate				13 Jul 1823
French	Caroline		MISSING SINCE 1941	(slate)				21 Jul 1826
French	Caroline	E.	5-15	marble		French Plot	19 Dec 1843	12 Jul 1862
French	Catherine	L.	5-16	marble		French Plot	23 Jan 1816	09 Mar 1891
French	Charles	H.	5-23	granite		French Plot		
French	Charles		5-10	marble		French Plot		21 Jan 1836
French	Charles		5-17	marble		French Plot		23 Sep 1861
French	Charles	Edward	5-13	marble		French Plot	25 Aug 1838	23 Nov 1890
French	Charles	H.	5-19	granite		French Plot	1877	1919
French	Elisha		B-27	marble				06 Oct 1877
French	Elizabeth		I-03	slate				25 Dec 1822
French	Elizabeth		I-08	slate	slate			06 Mar 1796
French	Elizabeth		K-05	marble				20 Nov 1820
French	Elizabeth		M-08	slate				16 Oct 1825
French	Ella		5-19	granite		French Plot	1851	1927
French	Eunice	Denton	6-10	granite		French Plot	1791	1870
French	George	Guild	5-19	granite		French Plot	1840	1910
French	Infant		5-11	marble		French Plot		1833
French	J.		6-39	iron door		was Tomb #2		
French	Jonathan		6-31	granite		was Tomb #7	1802	1882
French	Josiah		F-16	slate				04 Oct 1823
French	Josiah		MISSING AS OF 2010	(slate)				15 Nov 1760
French	Julia		L-08	marble	marble			27 Jul 1826
French	Julia	M.	5-13	marble		French Plot	1847	1932
French	Lewis		L-04	marble				30 Apr 1827
French	Lewis		L-07	slate	slate			29 Dec 1824
French	Lucinda		B-27	marble				01 Jul 1881

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
French	Lucy		B-28	marble				
French	Mehitable		K-04	slate				22 Aug 1819
French	Moses		I-01	slate				19 Jan 1807
French	Moses		I-02	slate	slate			19 Sep 1768
French	Moses, Jr.		6-33	granite		was Tomb #6	1794	1871
French	Ruth		5-12	granite		French Plot	16 Dec 1903	01 Feb 1910
French	S.		6-39	iron door		was Tomb #2		
French	Sally	A.	L-09	granite			1798	1848
French	Samuel		6-10	granite		French Plot	1790	1858
French	Samuel		M-06	slate				19 Jul 1761
French	Sarah		5-09	marble		French Plot		13 Feb 1861
French	Sarah	B.	6-31	granite		was Tomb #7	1801	1890
French	Sarah	E.	1-18	marble		Sherman Plot		26 Nov 1870
French	Silence		F-14	slate				03 Mar 1776
French	William	Henry	5-18	granite		French Plot	1854	1898
Gage	Mary	Denton	1-12	marble		Denton Plot		20 Apr 1903
Gage	Richard	Allen	MISSING AS OF 2010	(marble)		(Denton Plot)		30 Jan 185-
Gardner	Cushing		2-11	marble		DISPLACED		02 Nov 1850
Gilman	Peter	S.	H-11	marble				07 May 1852
Gorham	David		B-24	slate				1803
Gorham	Hannah	A.	B-29	marble	marble			08 Feb 1835
Guild	Francis	Eugene	G-02	slate				23 Aug 1846
H.	E.	H.	A-05	fieldstone				1734
Haden	Amey		A-04	fieldstone				
Haden	child		B-01	fieldstone				13 Apr 1754
Haden	Esther		A-01	fieldstone	A-08/fieldstone			14 Feb 1758
Hand??	Lydia		4-32	marble		J. Holbrook Plot		31 July 1877
Hay	Catherine	Weld	Q-03					16 Aug 1820
Hayden	Robert		4-10	marble		O. Hayden Plot		1861
Hayden			MISSING: Section 6	(Tomb)		Was Tomb #10		
Hayden	Abigail		4-07	marble	marble	O. Hayden Plot		13 Jul 1864
Hayden	Albert		MISSING AS OF 2010	(marble)				23 Mar 1864
Hayden	Alice	Marion	4-12	marble		O. Hayden Plot	29 Nov 1857	27 Apr 1872
Hayden	Benjamin		MISSING AS OF 2010	(slate)				14 May 1738
Hayden	Edward		1-08	marble		Saml. Hayden Plot		02 Feb 1857
Hayden	Elizabeth		M-07	slate				31 May 1820
Hayden	Harriet	M.	1-09	marble		Saml. Hayden Plot		26 Aug 1832
Hayden	Henry	Oliver	4-11	marble		O. Hayden Plot		20 May 1863
Hayden	Lizzie		MISSING AS OF 2010					
Hayden	Mehitable		1-05	marble		Arnold Plot		08 Nov 1866
Hayden	Nancy	W.	1-05	marble		Arnold Plot	1817	1893
Hayden	Oliver		4-08	marble		O. Hayden Plot		23 Jan 1870
Hayden	Robert		M-07	slate				05 Apr 1822
Hayden	Samuel		1-06	marble		Saml. Hayden Plot		12 Mar 1852
Hayden	Samuel		1-10	marble		Saml. Hayden Plot	1804	1885
Hayden	Sarah		B-16	slate				02 Nov 1811
Hayden	Silence		1-07	marble		Saml. Hayden Plot		27 Aug 1868
Hayden	Susanna		MISSING AS OF 2010	(slate)				28 Oct 1775
Hayden	Thomas	A.	1-05	marble		Arnold Plot		07 Feb 1869
Hayward			MISSING: Section 6	(tomb)		Was Tomb #1		
Hayward	Caleb		J-06	marble				23 May 1800
Hayward	David	Pearson	J-07	slate	slate			27 Sep 1813
Hayward	Ebenezer		J-04	slate				03 Feb 1775
Hayward	Elizabeth		J-05	slate				03 Feb 1775
Hayward	J.	Eliphaz	6-37	granite	2 granite		1822	1916
Hayward	John		J-01	slate				14 Sep 1773
Hayward	Jonathan		L-01	slate				13 Jan 1797
Hayward	Julia	F.	3-24	marble		Holbrook Plot		16 Jun 1909
Hayward	Julia	F.	6-02	marble		S.V. Arnold Plot		16 Jun 1909

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Hayward	Lois		J-08	slate	slate			02 Mar 1825
Hayward	Sarah		L-02	slate				20 Apr 1812
Hayward	Silence		J-02	slate	slate			05 Oct 1789
Hayward	Susan	C.	6-37	granite			1836	1913
Hayward	Thomas		J-03	slate				17 Jun 1791
Heard	Rutha		J-10	slate	slate			05 Jun 1817
Hicks	Sue	Howard	4-20	marble		Perkins Plot		1964
Hiscock	Elizabeth		D-06	slate	slate			07 Mar 1809
Hobart	Abraham		6-26	granite		was Tomb #14	1779	1863
Hobart	Adam		D-03	slate	slate			18 May 1824
Hobart	Albert	Rich	6-25	granite			1858	1925
Hobart	Albert		6-24	granite			12 Oct 1828	30 Jun 1910
Hobart	Bertha	Bishop	6-25	granite				17 Dec 1925
Hobart	Charles	W.	6-22	granite		C. Hobart Plot	1820	1894
Hobart	Elisha		6-30	iron door		was Tomb #9		
Hobart	John		6-23	marble		C. Hobart Plot		17 Sep 1853
Hobart	Louisa	Rich	6-24	granite				1923
Hobart	Mary	E.	4-35	granite		Luther Thayer Plot	1882	1890
Hobart	Mary	P.	6-22	granite		C. Hobart Plot	25 Sep 1826	16 Oct 1886
Hobart	Mehitable	Hayden	6-23	marble		C. Hobart Plot		01 Aug 1816
Hobart	Minot	T.	B-26	marble				08 Jul 1857
Hobart	Rebecca		O-13	slate				19 Mar 1834
Hobart	Susanna	Hunt	6-23	marble		C. Hobart Plot		09 Feb 1842
Holbrook	Eliza	Stone	4-27	marble		J. Holbrook Plot		23 Sept 1846
Holbrook	Amos	[illegible] th	4-33	marble				22 Nov 1848
Holbrook	Caleb		Q-01	slate				Mar 1793
Holbrook	Caroline	E.	3-23	marble	marble	Holbrook Plot		02 Aug 1846
Holbrook	David		Q-01	slate				26 Mar 1782
Holbrook	David		Q-04	slate				16 Nov 1818
Holbrook	Elisha	S.	3-24	marble		Holbrook Plot		20 Aug 1861
Holbrook	Fanny	T.	4-41	marble	marble	H.J. Holbrook Plot		02 Aug 1882
Holbrook	Hannah	S.	4-34	marble		J. Holbrook Plot		09 Nov 1848
Holbrook	Henry	E.	4-41	marble	marble	H.J. Holbrook Plot		28 Apr 1869
Holbrook	Henry	J.	3-24	marble		Holbrook Plot		13 Jul 1896
Holbrook	Henry	J.	4-41	marble	marble	H.J. Holbrook Plot		08 Dec 1878
Holbrook	Henry	Martin	B-32	slate				23 Aug 1828
Holbrook	James	S.	4-26	marble		J. Holbrook Plot	23 Jan 1806	01 Jun 1891
Holbrook	Jonathan		Q-01	slate				12 May 1797
Holbrook	Mary		B-13	slate				07 Mar 1781
Holbrook	Mehitable		Q-05	marble	marble			20 Nov 1841
Holbrook	Moses		Q-01	slate				27 Aug 1795
Holbrook	Myron	E.	3-24	marble		Holbrook Plot		01 Oct 1866
Holbrook	Rhoda		3-24	marble		Holbrook Plot		15 Jan 1868
Holbrook	Ruthy	Belcher	4-25	marble		J. Holbrook Plot	22 May 1815	05 Jun 1895
Holbrook	William		3-24	marble		Holbrook Plot		03 Jan 1871
Holbrook	William	Augustus	MISSING AS OF 2010	(marble)		(H.J. Holbrook Plot)		11 Oct 1848
Holbrook	William, Jr.		3-24	marble		Holbrook Plot		25 Jul 1872
Holland	Rose	Stifler	M-17	slate			1883	1963
Holland	Winfield	Scott	M-17	slate			1878	1934
Hollis	Carlye		3-18	granite		Hollis Plot		
Hollis	Alethea		MISSING AS OF 2010	(slate)		vicinity of C-06		
Hollis	Benjamin		C-07	slate				17 Mar 1778
Hollis	C.		6-39	iron door		was Tomb #2		
Hollis	Caleb	S.	6-36	granite			1821	1910
Hollis	David		6-35	granite		was Tomb #4	1782	1858
Hollis	Elizabeth		3-22	marble		Hollis Plot		13 Dec 1851
Hollis	Elizabeth		6-21	granite		J.W. Hollis Plot	1805	1872
Hollis	Hannah		C-06	slate	slate			19 May 1777
Hollis	Hannah	R.	6-36	granite			1839	1928

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Hollis	J.	Webster	6-21	granite		J.W. Hollis Plot	1826	1888
Hollis	John		4-50	marble		Arnold/Thayer Plot		03 Nov 1839
Hollis	John		C-05	slate	slate			27 Mar 1765
Hollis	John		O-12	slate				28 Dec 1801
Hollis	Jonathan	S.	6-21	granite		J.W. Hollis Plot	1830	1902
Hollis	Joseph		3-19	marble		Hollis Plot		11 Feb 1867
Hollis	Joseph	A.	3-21	granite		Hollis Plot	1822	1881
Hollis	Josiah		6-21	granite		J.W. Hollis Plot	1799	1874
Hollis	Laura	A.	3-21	granite		Hollis Plot	1832	1865
Hollis	Mary	A. Cutting	6-21	granite		J.W. Hollis Plot	1826	1910
Hollis	Mary	F.	6-21	granite		J.W. Hollis Plot	1857	1869
Hollis	Mary	French	MISSING AS OF 2010	(marble)		(Arnold/Thayer Plot)		04 Dec 1848
Hollis	Sally		3-19	marble		Hollis Plot		18 Nov 1866
Holyoke	Chester	C.	6-18	granite		Holyoke Plot	23 Sep 1888	08 Dec 1899
Holyoke	Edward	C.	6-19	granite		Holyoke Plot	1858	
Holyoke	Emma	H.	6-19	granite		Holyoke Plot	1856	
Howard	Ethelyn	A.	4-20	marble		Perkins Plot	1891	blank
Howard	Carrie	T.	4-20	marble		Perkins Plot	1860	1931
Howard	William		4-20	marble		Perkins Plot	1861	1934
Howe	Caroline	G.	4-23	marble		Howe Plot	01 Feb 1811	05 Jan 1848
Howe	Clarissa	N.	3-02	granite		Minchin Plot	1835	1923
Howe	Daniel		4-23	marble		Howe Plot	05 Dec 1776	08 Jul 1863
Howe	Daniel		4-23	marble		Howe Plot	12 Oct 1807	01 Dec 1880
Howe	Daniel	W.	4-23	marble		Howe Plot	19 Jul 1831	20 Nov 1861
Howe	Hannah	L. Cook	4-23	marble		Howe Plot	31 Oct 1811	04 Dec 1889
Howe	Mary	L.	4-23	marble		Howe Plot	29 Mar 1868	10 Jan 1869
Howe	Sally	Blunt	4-23	marble		Howe Plot	01 Jan 1782	27 Sep 1870
Howe	Susan		4-22	marble		Howe Plot		21 Feb 1863
Hunt	Elihu		E-29	granite			10 Jan 1765	01 Jun 1836
Hunt	Esther		6-37	granite			1825	1907
Hunt	Josiah		4-02	marble		M. Hunt Plot		25 Dec 1855
Hunt	Josiah	H.	4-02	marble		M. Hunt Plot		13 Mar 1865
Hunt	Mary		E-29	granite			15 Sep 1767	27 Oct 1861
Hunt	Minott		4-15	marble		M. Hunt Plot		09 Sep 1845
Hunt	Minott	E.	4-16	granite		M. Hunt Plot	02 Aug 1825	22 Mar 1893
Hunt	Moses		4-02	marble		M. Hunt Plot		26 Jan 1868
Hunt	Nathaniel	F.	6-37	granite				22 Feb 1914
Hunt	Prudence		4-13	marble		M. Hunt Plot		09 May 1860
Hunt	Sally		E-29	granite			15 Sep 1803	13 Apr 1894
Jarvis	John		L-05	marble	marble		21 Jun 1791	21 Aug 1824
Jarvis	Mary	R.	L-06	marble	marble			29 Sep 1829
Jennings	Susan	Ann	4-03	granite		M. Hunt Plot	1831	1905
Jennings	Harriet	T.	4-03	granite		M. Hunt Plot		1946
Jennings	Samuel	W.	4-03	granite		M. Hunt Plot	1827	1895
Jennings	William	L.	4-03	granite		M. Hunt Plot	1865	1902
Jones	Ephraim		C-03	slate	slate			27 Jan 1757
Jones	Lilly		Q-14	slate				04 Jun 1804
Jones	Mary		C-04	slate	slate			30 Jan 1733
Kendall	Mary		3-11	marble		Bowditch Plot		23 Dec 1853
Kendall	William		3-10	marble		Bowditch Plot		26 Apr 1854
Kincaid	Frederick		1-30	granite		Kincaid Plot		
Kincaid	Hattie		1-30	granite		Kincaid Plot		
Kincaid	James		1-30	granite		Kincaid Plot	1776	23 Dec 1853
Kincaid	Sarah	Allen	1-30	granite		Kincaid Plot	1831	1911
Kincaid	Thomas		1-30	granite		Kincaid Plot	1821	08 Jun 1854
Kincaid	William		1-30	granite		Kincaid Plot	1830	1904
Kincaid	William		1-30	granite		Kincaid Plot		
Lane	Daniel		G-06	slate				24 Nov 1840
Loring	Daniel		B-30	slate			19 Jan 1751	27 Jul 1831

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Loring	Mary	T.	B-31	slate			30 Mar 1757	08 Apr 1834
Loud	Francis		F-02	slate				01 Feb 1804
Ludden	Joseph	Henry	MISSING SINCE 1941	(marble)				20 Aug 1854
Ludden	Joseph	T.	MISSING SINCE 1941	(marble)			23 Jun 1819	12 Dec 1862
Mann	Lydia		MISSING AS OF 2010	(marble)				31 Jul 1877
Mayhew	John	Henry	1-29	granite	2 granite	Mayhew Plot	1879	08 Aug 1880
Mayhew	Mary Rosemond	Minchin	1-29	granite		Mayhew Plot	1851	1927
Mayhew	Will	Watson	1-29	granite		Mayhew Plot	1857	1912
Mcgrath	John	Richard	5-20	granite		French Plot		1942
Mcgrath	Pauline	French	5-20	granite		French Plot		1968
Mcgrath	Ruth	Lamb	5-20	granite		French Plot		1910
Mcgrath	Sarah	Catherine	5-20	granite		French Plot		1955
Mekuset	Daniel		F-13	slate	slate			02 Jan 1717
Minchin	Charles	E.	6-10	granite			1851	1935
Minchin	Charles	H.	3-06	slate	slate	Minchin Plot		28 Sep 1851
Minchin	Clarissa	B.	MISSING AS OF 2010	marble		(Minchin Plot)		17 Apr 1896
Minchin	Eunice	E.	6-10	granite			1848	1892
Minchin	John	H.	3-03	marble		Minchin Plot		25 Dec 1875
Minchin	Lizzie	C. French	6-10	granite			1853	1915
Minchin	Martin	Van	3-07	slate	slate	Minchin Plot		10 Sep 1838
Minchin	Mary	E. Tirrell	6-10	granite			1827	1908
Minchin	Paul	J.	6-10	granite			1825	1912
Monroe	Rachel	R.	L-10	granite			1828	1858
Mosman	Clara	Bell	4-17	marble		E. Denton Plot		1862
Mosman	Francis	Warren	4-17	marble		E. Denton Plot		1851
Mosman	Frederick	DeValson	4-17	marble		E. Denton Plot	1857	1858
Mosman	Lincoln	Seward	4-17	marble		E. Denton Plot	1865	1868
Mosman	Lorne	B.	4-20	marble		Perkins Plot		1957
Mosman	Marion	Howard	4-20	marble		Perkins Plot		1948
Mosman	Marion	Aleign	4-17	marble	granite	E. Denton Plot	1873	1889
Mosman	Warren	Denton	4-17	marble		E. Denton Plot		1860
Nason	Charles	S.	B-33	slate			27 Oct 1836	01 Dec 1836
Niles	Ann		P-04	slate				25 Oct 1732
Niles	Elizabeth	Thatcher	O-07	box tomb				10 Feb 1716
Niles	Florence	Storrs	1-22	marble		Niles Plot		18 Nov 1866
Niles	Nancy	Jane	1-20	marble		Niles Plot		23 Apr 1864
Niles	Nathaniel		P-03	granite				22 Dec 1727
Niles	Oliver	H. Perry	1-21	marble		Niles Plot	1819	1888
Niles	Samuel		P-05	slate	slate		01 May 1674	01 May 1762
Nottage	Josiah		4-04	marble				14 Mar 1846
Nudd	Sarah	H.	3-20	marble		Hollis Plot	10 Nov 1819	28 Nov 1846
Penniman	Children		F-18	marble				
Penniman	Lucy	Mary	6-09	slate	slate			1836
Penniman	Ruth		E-20		slate			
Penniman	Abigail		F-03	slate				03 Apr 1738
Penniman	Abijah		6-12	marble		Abijah Penniman Plot		11 Jan 1878
Penniman	Abijah	N.	6-11	marble		Abijah Penniman Plot		20 Dec 1871
Penniman	Amasa		E-15	marble				07 Sep 1828
Penniman	Asa		3-01	marble		Minchin Plot		15 Jun 1869
Penniman	Atherton	Thayer	F-01	marble	marble			27 Nov 1864
Penniman	Barzillai		B-36	marble				27 Jul 1854
Penniman	Barzillai	N.	B-38	slate				30 Sep 1852
Penniman	Dorcas		F-09	slate				14 Oct 1796
Penniman	Elijah		B-19	marble				08 May 1833
Penniman	Eliza	A.	2-02	granite		N. Penniman Plot	1827	1910
Penniman	Elizabeth	A.	2-03	marble		N. Penniman Plot		08 Apr 1878
Penniman	Elizabeth	H.	3-04	marble	marble	Minchin Plot		13 Jan 1872
Penniman	Enoch		F-06	slate	slate			06 Oct 1746
Penniman	Eunice		E-15	marble				12 Jul 1822

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Penniman	George	W.	MISSING AS OF 2010			E-15 vicinity		25 Nov 1832
Penniman	James		F-07	slate				03 Jul 1752
Penniman	James		F-08	slate				22 May 1789
Penniman	Josiah		B-34	slate				11 Jun 1825
Penniman	Lucy		6-13	marble		Abijah Penniman Plot		11 Dec 1884
Penniman	Mary		B-35	slate				16 Apr 1831
Penniman	Nathaniel		2-03	marble		N. Penniman Plot		06 Jan 1836
Penniman	Ruth		B-19	marble				08 Dec 1859
Penniman	Ruth		B-19	marble				22 Mar 1838
Penniman	Ruth		B-37	marble				23 Jan 1838
Penniman	Ruth		F-05	slate	E-20			17 Aug 1776
Penniman	Sarah		B-18	slate				15 Jan 1807
Penniman	Silence		F-17		slate			03 May 1817
Penniman	Susan	S.	6-14	marble		Abijah Penniman Plot		07 Jan 1891
Penniman	Thomas	E.	2-02	granite		N. Penniman Plot	1824	1900
Penniman	William		6-15	marble		Abijah Penniman Plot		14 May 1862
Penniman	William		B-17	slate				10 Jul 1813
Perkins	Claribell		4-20	marble		Perkins Plot		03 Sep 1848
Perkins	Hannah	B.	4-20	marble		Perkins Plot		14 Jun 1866
Perkins	Oliver	Augustus	4-20	marble		Perkins Plot		11 Sep 1846
Perkins	Ruth	Thayer	1-25	granite		Wales Plot	1826	1903
Perry	Harriet	N. Curtis	1-24	marble		Wales Plot		23 Nov 1891
Perry	Lemuel	B.	1-24	marble		Wales Plot		04 Mar 1865
Pidgeon	R.	A.	6-20			Holyoke Plot	1847	1881
Plaisted	Charlotte	Lane	M-13	marble		Storrs Plot	06 Jan 1787	12 Jan 1881
Pratt	Jeru.		B-02	slate				25 Sep 1769
Procter	Mary	L.	5-22	granite		French Plot	1847	1923
Procter	Nehemiah	R.	5-22	granite		French Plot	1845	1905
Reed	William		B-20	slate				14 Sep 1813
Robinson	Elizabeth		1-23	marble		Wales Plot	Wales Plot	1897
Ryan	Benjamin	D.	3-15	marble	marble	Ryan Plot		31 Dec 1868
Ryan	Daniel	H.	3-15	marble		Ryan Plot		18 Feb 1867
Ryan	Sarah		H-09	slate				18 Apr 1841
Ryan	Sarah	Munroe	3-15	marble		Ryan Plot		16 Mar 1854
Sampson	Joshua		E-26	granite	granite		01 Mar 1776	29 Dec 1834
Sampson	Lucy		E-26	granite	granite		20 May 1778	02 Jun 1865
Sampson	Rachel		E-27	slate				23 Jun 1787
Sampson	Rachel		E-28	marble				06 Nov 1856
Savel	Bethiah		G-03	slate				11 Oct 1770
Sawyer	Caroline	F.	1-11	granite		C.H. Sawyer Plot	1837	1906
Sawyer	Laura	A.	1-11	granite		C.H. Sawyer Plot	1801	1859
Sawyer	Margaret	Ann	MISSING AS OF 2010			(C.H. Sawyer Plot)		07 Sep 1836
Sawyer	Sarah	H.	1-11	granite		C.H. Sawyer Plot	1828	1898
Sawyer	William	H.	1-11	granite		C.H. Sawyer Plot	1811	1889
Sawyer	William	A(ugustus	MISSING AS OF 2010	(marble)		(C.H. Sawyer Plot)		30 Mar 1842
Sherman	Eliza	M.	1-16	marble		Sherman Plot		1875
Sherman	Phebe	V.	1-14	granite		Sherman Plot		1888
Sherman	Rufus		1-15	marble		Sherman Plot		1877
Sherman	William	M.	1-14	granite		Sherman Plot		1887
Soper	Betsey	Crosby	E-16	slate				26 Jul 1782
Soper	Edmund		E-16	slate				27 Sep 1776
Soper	Eunice		E-16	slate				03 Jan 1786
Soper	Eunice		E-16	slate				24 Sep 1774
Soper	Fanny		E-16	slate				23 Dec 1801
Soper	Jesse	Curtis	E-16	slate				16 Aug 1790
Soper	Martha		E-16	slate				05 May 1789
Soper	Mary	F.	4-06	granite		E.N.Thayer Plot	1788	1859
Soper	Theophilus		E-16	slate				03 May 1784
Southworth	Edward	D.	3-05	marble		Minchin Plot		13 Aug 1867

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Stetson	Ellen	F.	4-41	marble		H.J. Holbrook Plot	1829	1918
Stetson	Franklin	Holbrook	4-42	marble	marble	H.J. Holbrook Plot		26 Feb 1855
Storrs	Anne	Stebbins	M-16	granite		Storrs Plot	15 Nov 1792	27 Aug 1874
Storrs	Charles	B.	M-14	marble		Storrs Plot	23 May 1794	15 Sep 1833
Storrs	Harriet		M-15	marble		Storrs Plot	12 Dec 1786	10 Jul 1834
Storrs	Richard	Salter, D.	M-16	granite		Storrs Plot	06 Feb 1787	11 Aug 1873
Storrs	Sarah	S.	M-15	marble		Storrs Plot	14 Mar 1793	06 Apr 1818
Sullivan	Nancy	M.	H-10	marble				20 Apr 1848
Tenney	Gershom		E-21	slate	slate			29 Dec 1768
Thayer	Abigail		E-19		slate			
Thayer	Abigail		F-04	slate				06 Aug 1727
Thayer	Abigail		M-05	slate	E-19/slate			01 Jan 1730
Thayer	Atherton		MISSING AS OF 2010					
Thayer	C.	H.	4-19	marble		Fogg/Thayer Plot	1853	1925
Thayer	Caleb		R-03	slate				26 Nov 1759
Thayer	Deborah		J-11	slate				
Thayer	Deborah		J-12	slate				23 Jan 1810
Thayer	Deborah		J-14	slate				12 Dec 1792
Thayer	Deliverance		I-16	marble			01 May 1783	02 May 1877
Thayer	Delivere[nce]		MISSING SINCE 1941	(slate)				17 Jan 1723
Thayer	E.		B-05	slate				21 May 1720
Thayer	E.		S-01	Tomb				
Thayer	E.		MISSING SINCE 1941	(slate)				30 Jun 1731
Thayer	Ebenezer		F-12	slate				11 Jun 1720
Thayer	Ebenezer	F.	4-06	granite		E.N.Thayer Plot	1784	1824
Thayer	Ebenezer	F. E.	4-06	granite		E.N.Thayer Plot	1815	1894
Thayer	Eleanora	E.	F-15	slate				
Thayer	Elisha		I-12	slate	slate			06 Apr 1834
Thayer	Elisha		R-17	marble			11 Jul 1779	27 Jan 1857
Thayer	Elisha	N.	4-19	marble		Fogg & Thayer Plot	29 Oct 1802	05 Oct 1836
Thayer	Elisha	Strong	3-16	granite		E.S. Thayer Plot	19 Jun 1817	13 May 1900
Thayer	Elisha	Warren	I-11	slate	slate			17 Feb 1843
Thayer	Elizabeth	D.	4-36	marble		Luther Thayer Plot		03 Jan 1881
Thayer	Elizabeth	S.	4-06	granite		E.N.Thayer Plot	1827	1874
Thayer	Esther		I-07	slate	slate			29 Aug 1793
Thayer	Frank	Storrs	4-06	granite		E.N.Thayer Plot	1851	1927
Thayer	George	W.	4-49	marble		Arnold & Thayer Plot	1804	1874
Thayer	Gideon		G-07	slate				23 Apr 1841
Thayer	Hannah		Q-09	slate	slate			06 Mar 1832
Thayer	Henry	Strong	3-16	granite		E.S. Thayer Plot	1840	1905
Thayer	Indiana	Gifford	3-16	granite		E.S. Thayer Plot	1843	1935
Thayer	infant		F-10	slate				09 May 1754
Thayer	James		Q-11	slate				01 Sep 1818
Thayer	James	I.	J-13	slate	slate			19 Jun 1790
Thayer	Jemina		G-07	slate				11 Mar 1801
Thayer	Jemina		G-07	slate				11 Feb 1805
Thayer	John		MISSING AS OF 2010					
Thayer	John		F-10	slate				04 Dec 1753
Thayer	Johnme---		MISSING AS OF 2010					
Thayer	Joseph		G-07	slate				28 Sep 1811
Thayer	Joseph	V.	4-38	marble		Luther Thayer Plot		26 Mar 1851
Thayer	Lucinda	A.	4-06	granite		E.F.E. Thayer Plot	1784	1822
Thayer	Lucretia	D.	I-10	slate	slate			31 Jan 1844
Thayer	Lydia		I-05	slate				19 Mar 1783
Thayer	Lydia		Q-07	slate	slate			15 Sep 1775
Thayer	Maria	White	3-16	granite		Thayer/White Plot	31 July 1821	06 Dec 1893
Thayer	Marie	Ann	3-16	granite		Thayer/White Plot	1872	1963
Thayer	Mary		MISSING SINCE 1941	(fieldstone)	(fieldstone)			14 May 1761
Thayer	Mary	B.	3-14	marble		Bowditch Plot		02 Dec 1872

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Thayer	Mary D.		4-48	granite		Dickerman Plot	1829	1924
Thayer	Nahum		4-48	granite		Dickerman Plot	1827	1906
Thayer	Nancy	A.	4-49	marble		Arnold/Thayer Plot	1802	1888
Thayer	Nathaniel		Q-10	slate	slate		25 Apr 1752	08 Feb 1829
Thayer	Nathaniel		Q-12	slate				03 Aug 1817
Thayer	Nathaniel		R-02	slate				28 Dec 1768
Thayer	Nathaniel		R-05	slate				28 Mar 1728
Thayer	Nathaniel	Emmons	I-15	marble			29 May 1778	08 Sep 1812
Thayer	Nathaniel	P.	4-39	marble		Luther Thayer Plot		22 Oct 1851
Thayer	Nathaniel, 2nd		R-04	slate	slate			03 Jan 1752
Thayer	Nathaniel, Esq.		H-08	marble				13 Aug 1829
Thayer	Nehemiah		J-16	slate				27 Jun 1812
Thayer	Obediah		I-14	slate	slate			17 Jun 1841
Thayer	Our Lillie		4-06A	marble		E.N.Thayer Plot		
Thayer	Rachel	R.	4-06	granite		E.F.E. Thayer Plot	1812	1902
Thayer	Rebecca		H-07	slate	slate			28 Jan 1732
Thayer	Richard		N-09	slate				11 Sep 1729
Thayer	Ruth		F-11	slate	slate			27 May 1740
Thayer	S.		MISSING: Section 6	(tomb)		Was Tomb #8		
Thayer	Sarah		A-11	slate				19 Aug 1751
Thayer	Sarah		B-12	slate				21 Mar 1736
Thayer	Sarah		H-03	slate				10 Dec 1771
Thayer	Sarah		J-15	slate				13 Oct 1813
Thayer	Sarah	E.	4-37	marble	marble			26 May 1849
Thayer	Sarah	H.	4-19	marble		Fogg/Thayer Plot	1833	1903
Thayer	Sarah	S. S.	4-06	granite		E.F.E. Thayer Plot	1818	1896
Thayer	Soloman		6-27	granite		WAS Tomb #13	1755	1835
Thayer	Stephen	S.	4-06	granite		E.F.E. Thayer Plot	1822	1867
Thayer	Susanna		F-10	slate				09 May 1754
Thayer	Susanna	N.	4-19	marble		Fogg/Thayer Plot	1820	1912
Thayer	Susanna	Veazie	R-17	marble			05 Jun 1781	16 May 1857
Thayer	Thomas		Q-06	slate	slate			22 Nov 1779
Thayer	Thomas		Q-13	slate				21 Jun 1813
Thayer	William		B-07	fieldstone				27 Jan 1756
Thayer	William		J-11	slate				17 Mar 1822
Thayer	William	Henry	I-11	slate	slate			13 Sep 1843
Thayer	William		MISSING AS OF 2010					
Tupper	Jennie		MISSING AS OF 2010	(marble)			1860	1897
UID			A-07	fieldstone				
UID			B-08	fieldstone				
UID			B-11A	fieldstone				
UID			B-21	slate				
UID			B-22	fieldstone				
UID			C-08	marble				
UID			E-13		slate			
UID			M-01		slate			
Veazie	Benjamin		R-08	marble				07 Mar 1802
Veazie	Joseph		R-13	marble			1758	1817
Veazie	Joseph	M.	R-16	marble				03 May 1848
Veazie	Lemuel		R-11	slate				09 Jun 1825
Veazie	Lemuel	Storrs	O-14	marble				10 Jan 1863
Veazie	Lucy	M. French	B-28	marble				27 Mar 1859
Veazie	Mary		R-06	marble			1758	1826
Veazie	Mary	M.	R-14	marble				21 Mar 1811
Veazie	Mary	T(hayer	R-09	marble				----
Veazie	Nancy	C. ----	R-10	marble				
Veazie	Phebe		R-15	slate				14 Mar 1847
Veazie	Rachel		O-15	marble				08 Mar 1864
Veazie	Sarah		R-12	slate				10 May 1824

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
Veazie	Susan		R-07	marble			1760	1807
Veazie	Susan	T.	R-16	marble				15 Sep 1848
Vickery	Eliza	T.	L-11	marble			18 Oct 1817	10 Jun 1843
Vickery	George	C.	MISSING AS OF 2010	(marble)			03 Jun 1843	01 Apr 1846
Vickery	Lucy		4-20	marble		Perkins Plot		08 Jul 1828
Vickery	Martha	Perkins	4-20	marble		Perkins Plot		28 Sep 1843
Vinton	Anne	Adams	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		18 Dec 1851
Vinton	Betsey	Snow	2-01	marble plaque		Vinton Tomb		09 Aug 1849
Vinton	Charlotte	W.	2-01	marble plaque		Vinton Tomb		06 Aug 1842
Vinton	Edward	Payson	2-01	marble plaque		Vinton Tomb		13 Oct 1861
Vinton	Eliza	Ann	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		05 Feb 1876
Vinton	Hannah		O-08	slate				14 Nov 1762
Vinton	Harriet	N.	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		23 May 1894
Vinton	Henry		M-10	marble				12 Aug 1790
Vinton	Henry	B.	3-09	granite		Vinton Plot	1851	1916
Vinton	Henry	R. S.	3-09	granite		Vinton Plot	12 Aug 1885	31 Aug 1885
Vinton	Henry 2nd		M-10	marble				13 May 1799
Vinton	Hepzibah		D-04	slate	slate			17 Feb 1809
Vinton	Jo(hn)		D-05	slate	slate			-- --- 1803
Vinton	John		O-10	slate				05 Feb 1737/38
Vinton	Josiah		2-01	marble plaque		Vinton Tomb		17 Oct 1857
Vinton	Josiah		MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		27 Dec 1843
Vinton	Mary	A.	MISSING AS OF 2010	[marble plaque]		[Vinton Tomb]		29 Oct 1881
Vinton	Mary	E.	3-09	granite		Vinton Plot	1850	1907
Vinton	Mehitable		E-01	slate	E-17			17 May 1761
Vinton	Mehitable		E-17		slate			17 May 1761
Vinton	Mehitable		M-10	marble				26 Jan 1796
Vinton	Nancy	A.	M-10	marble				26 Feb 1806
Vinton	Phebe	W. Clisby	2-01	marble plaque		Vinton Tomb		23 Feb 1855
Vinton	Samuel		G-05	slate				08 Dec 1786
Vinton	Sophia	Nash	3-09	granite		Vinton Plot	16 Feb 1816	20 Sep 1870
Vinton	Thomas		O-09	slate				18 Jan 1757
Vinton	Thomas		O-11	slate	slate			28 Feb 1776
Vinton	Thomas	B.	3-09	granite		Vinton Plot	09 Dec 1818	03 Sep 1893
Vinton	William		O-10	slate				07 Jan 1737/38
W.	S.		A-02	fieldstone				1802
Wales	Benjamin	Carr	1-27	granite		Wales Plot	1822	1893
Wales	Elizabeth		MISSING SINCE 1941	(slate)				29 Jun 1750
Wales	J.	W.	1-28	granite		Wales Plot	1812	1889
Wales	Josephine	E.	1-27	granite		Wales Plot	1837	1915
Wales	Mary		F-20	marble				27 Jan 1841
Wales	Mary		P-02	marble				27 Jan 1841
Wales	Nathaniel		F-19	marble				24 Dec 1825
Wales	Nathaniel		MISSING SINCE 1941	(slate)				
Wales	Nathaniel	W.	G-08	slate				30 Jun 1839
Wales	Nathaniel, Jr.		1-26	sandstone		Wales Plot	1779	1851
Wales	Sarah		1-26	sandstone		Wales Plot	1787	1871
Waymouth	Edna		2-07	marble		Waymouth Plot		
Waymouth	Gertie		2-07	marble		Waymouth Plot		
Waymouth	Harriet	H.	2-09	marble	marble	Waymouth Plot		08 Mar 1893
Waymouth	Olive	T.	2-08	marble	marble	Waymouth Plot		17 Mar 1842
Waymouth	Robert		2-10	granite	marble	Waymouth Plot	08 Sep 1818	01 Jun 1898
Webb	Amey		B-06	slate				24 Feb 1717
Webb	John		A-03	fieldstone				12 Oct 1749
Weld	Anna		Q-02	slate	slate			10 Jul 1774
Weld	Ezra		P-06	marble	marble		13 Jun 1736	16 Jan 1816
Weld	Hannah		Q-03	marble	marble			31 Mar 1778
White	Sally		4-24	marble		J. Holbrook Plot		1821
White	Augustus		J-09	slate	slate			Jun 1778

APPENDIX 4 – STONES IN THE CEMETERY

SURNAME	FIRST	MIDDLE	LOCATION	STONE TYPE	FS	AREA	BORN	DIED
White	Caleb		4-30B	marble				29 Aug 1851
White	Calvin		3-17	marble		Thayer/White Plot		26 Nov 1857
White	Ebenezer		N-07	slate	slate			19 Jul 1770
White	Joseph		M-09	slate	slate			Aug 1774
White	Lydia		N-03	slate	slate			-- Jan 1778
White	Lydia		N-07	slate	slate			27 Jun 1755
White	Samuel		N-05	slate	slate			29 Mar 1766
White	Samuel		N-06	slate	slate			04 Nov 1756
White	Sarah		M-09	slate	slate			05 Jan 1772
White	Thomas		M-04	slate	slate			18 Mar 1778
White	William		N-08	slate	slate			15 Mar 1772
Wild	Ruth	Thayer	K-02	slate	slate			12 Jan 1794
Wild	Abigail	Allen	4-09	marble		O. Hayden Plot		24 Jan 1848
Wild	Jonathan		6-30	iron door		was Tomb #9		
Wild	Sarah		K-01	slate				26 Oct 1769
Wild	Sarah		M-02	slate				29 Jan 1724/25
Wild	Silas		K-03	slate	slate		1736	30 Sep 1807
Williams	Della		1-11	granite		C.H. Sawyer Plot		1952
Williams	Sarah		J-20	marble				14 Nov 1856
Williams	Sarah	G.	J-19	slate				14 Jan 1848
Willis	Josephine		O-06	marble				01 Sep 1835
Wright	Lillie	T.	4-06	granite		E.N.Thayer Plot	1845	1864
Wright	Lucinda	A.	4-06	granite		E.N.Thayer Plot	1817	1845
	Baby		3-08	marble		Minchin Plot		

Cemetery Preservation Plans

Historical Research

Identification of Grave Locations and Mapping

Condition Assessments

Treatment of Stone and Ironwork

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